

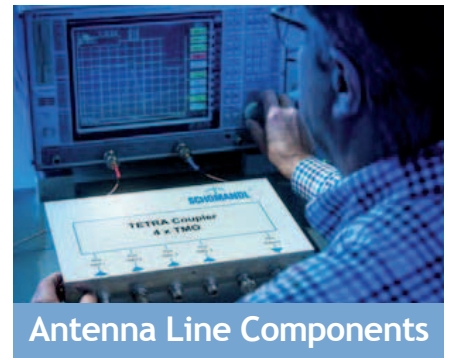
4TECT

OOO "4TECT"
+7(499)685-44-44
info@4test.ru
www.4test.ru



SCHOMANDL®

Dedicated to professional communication -
since more than 65 years!



Product Catalog

Dear valued customer,

founded 1947 in Munich by Artur Schomandl, our company has a long history and a well reputation for its product range of signal generators based on high stability decade oscillators. Between 1983 and 2013 we were part of the Kathrein Group and extended our portfolio with test receivers, power meters and test sets for professional mobile radio.

Independent since 2013, we have acquired Kathrein's professional antenna portfolio for frequency ranges between 27 and 174 MHz in 2015. Since then we are the new home of a legendary product range of antennas for professional mobile radio applications. Together with our existing products for antenna testing and our filters and couplers for PMR applications, we are offering a competitive portfolio for nearly every demand.

Schomandl is designing and manufacturing all products in Germany and distributing it under its own brand name.

We are now owned and controlled by engineers and managers with decades of experience in professional mobile radio business, especially in public safety, transport & logistics, maritime radio as well as in industrial & utilities applications. On the following pages, we want to provide you a comprehensive overview of our products. If you need more information or are missing any content, please do not hesitate to contact us at sales@schomandl.com.

Yours sincerely,

A handwritten signature in blue ink, appearing to read "W. Schnoor". The signature is fluid and cursive, with a large, sweeping flourish at the end.

Wolfgang Schnoor

CEO

Vertical Polarization Omnidirectional Antennas

		Frequency	Order-no.	page
V pol Groundplane	717 758	25 ... 61 MHz	8000 0855	5
V pol Groundplane	K 51 24 72	27 ... 61 MHz	8000 0008	7
V pol Groundplane	K 51 26 41 1	68 ... 87 MHz	8000 0010	9
V pol Groundplane	K 51 26 42 1	68 ... 87 MHz	8000 0011	9
V pol Omni Sleeve Dipole	K 55 21 41	68 ... 87.5 MHz	8000 0856	11
V pol Dipole	K 55 28 41	68 ... 87.5 MHz	8000 0012	13
V pol Dual Band Groundplane	K 51 25 42 1	74.2 ... 87.5 MHz	8000 0009	15
V pol Groundplane	K 51 26 2	146 ... 174 MHz	8000 0013	17
V pol Groundplane	711 530	146 ... 174 MHz	8000 0014	17
V pol Omni Sleeve Dipole	K 55 26 26	146 ... 156 MHz	8000 0015	19
V pol Omni Sleeve Dipole	K 55 26 27	155 ... 165 MHz	8000 0016	19
V pol Omni Sleeve Dipole	K 55 26 28	164 ... 174 MHz	8000 0017	19
V pol Omni Colinear	K 55 16 21 1	146 ... 155 MHz	8000 0857	21
V pol Omni Colinear	K 55 16 22 1	155 ... 164 MHz	8000 0858	21
V pol Omni Colinear	K 55 16 23 1	164 ... 174 MHz	8000 0859	21
V pol Omni Colinear	736 931	161 ... 162 MHz 169 ... 170 MHz	8000 0860	23
V pol Dipole	K 55 29 21	146 ... 174 MHz	8000 0019	25
V pol Dipole Colinear	K 55 31 21	146 ... 174 MHz	8000 0861	27

Vertical/Horizontal Polarization Directional

2-Element Yagi	K 53 19 41 1	68 ... 80 MHz	8000 0001	29
2-Element Yagi	K 53 19 42 1	74 ... 87.5 MHz	8000 0002	29
4-Element Yagi	K 53 17 41	68 ... 87.5 MHz	8000 0003	31
V pol Bidirectional Dipole	K 53 00 21	146 ... 174 MHz	8000 0862	33
2-Element Yagi	K 53 19 21	146 ... 174 MHz	8000 0004	35
3-Element Yagi	K 53 18 21	146 ... 174 MHz	8000 0005	37
11-Element Yagi	K 52 07 21	146 ... 174 MHz	8000 0006	39
Panel - Heavy Duty	K 52 32 21	146 ... 174 MHz	8000 0007	41

Indoor Power Dividers / Tappers / Filters

		Frequency	Order-no.	page
RF Power Divider 3-3dB	WIBZ 3-3	145 - 470 MHz	80010293	43
RF Power Divider 3-3dB Wilkinson	WILK	146 - 175 MHz	80012613	44
RF Power Divider 6dB	DIVD	0 - 2.5 GHz	80010273	45
RF Power Divider 1-10 dB	WIBZ 1-10	145 - 470 MHz	80010299	46
Active RF Divider 2-Port 6dB	AMP 3-2	50 - 500 MHz	80011180	47
Active RF Divider 3-Port 6dB	AMP 3-3	50 - 500 MHz	80012617	48
Wideband Low Loss Power Tapper	WLPT 10	150 - 2700 MHz	80001074	49
Programmable Preselection Filter	PPSF	380 - 470 MHz		51

TETRA Multicouplers

TETRA Coupler TMO 2			80011203	53
TETRA Coupler TMO 3			80011262	54
TETRA Coupler TMO 4			80011123	55
TETRA Coupler TMO 1 + DMO 1			80012265	56
TETRA Coupler TMO 2 + DMO 1			80011204	57
TETRA Coupler TMO 3 + DMO 1			80012263	58
TETRA Coupler TMO 4 + DMO 1			80011124	59
TETRA AutoCoupler 2 TMO/DMO			80011205	60
TETRA AutoCoupler 3 TMO/DMO			80012264	61
TETRA AutoCoupler 4 TMO/DMO			80011128	62

Instruments

FIT Fast Installation Tester 30W	FITUSB-30		80008284	63
FIT Fast Installation Tester 300W	FITUSB-300		80009760	
FAT 2710 Fast Antenna Tester	FAT2710		80008282	65
Soft Bag with Accessories for FAT2710	FATACC1			
SI-1000 RF Detector	SI-1000		80008285	67
Belt Pouch for SI-1000	SI-1000ACC			

Cross Reference List

69

V pol Groundplane Antenna 25 ... 61 MHz Vertical Polarization

The Schomandl 717758 is a tunable Groundplane antenna for a wide frequency range.

- Entire antenna at DC ground potential to prevent electrostatic noise and to improve lightning protection
- Wide frequency range achievable by cutting radials to desired length
- Variable mounting configurations allow feeder cable to be run inside or outside the support pipe.
- Stainless steel ground radials, hardware, and fastenings.

Type No.	717758
Input	N female
Frequency range	25 ... 61 MHz
Gain (bez. $\lambda/2$ -dipole)	0 dB
Impedance	50 Ω
Polarization	Vertical
Max. power	500 W (at 50 °C ambient temperature)
Weight*	1.8 kg
Wind load*	120 N (at 150 km/h)
Max. wind velocity	120 km/h
Packing size	3000 x \varnothing 120 mm
Radiator length	max. 2510 mm
Length of radials	max. 2910 mm
Order No.	80000855

* for max. antenna length

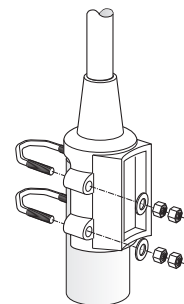
Material: Radiator and radials: Fiberglass with imbedded stranded copper wire.
Base: Aluminum.
Mounting U-bolt, all screws and nuts: Stainless steel.

Mounting: The antenna can be attached in two ways with the supplied mounting kit:
1. On the tip of a tubular mast of 40 - 54 mm diameter (connecting cable runs inside the mast).
2. Laterally at the tip of a tubular mast of 20 - 54 mm diameter (connecting cable runs outside the mast).

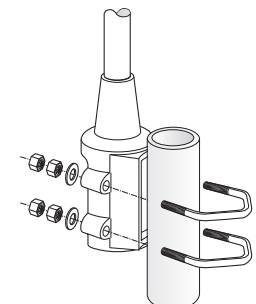
Radials: Tightening torque 25 Nm

Tuning: By cutting radiator and radials to length in accordance to the mounting instructions.

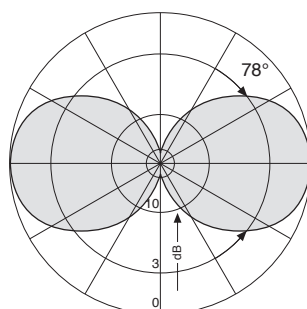
Grounding: All metal parts of the antenna including the mounting kit are DC grounded.



On the tip of a tubular mast

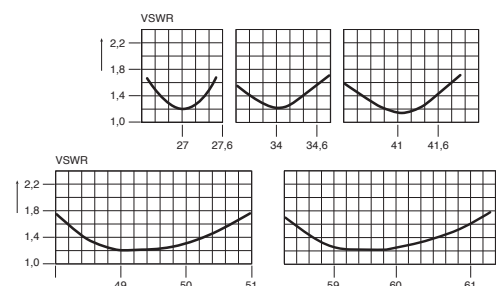


Laterally at the tip of a tubular mast

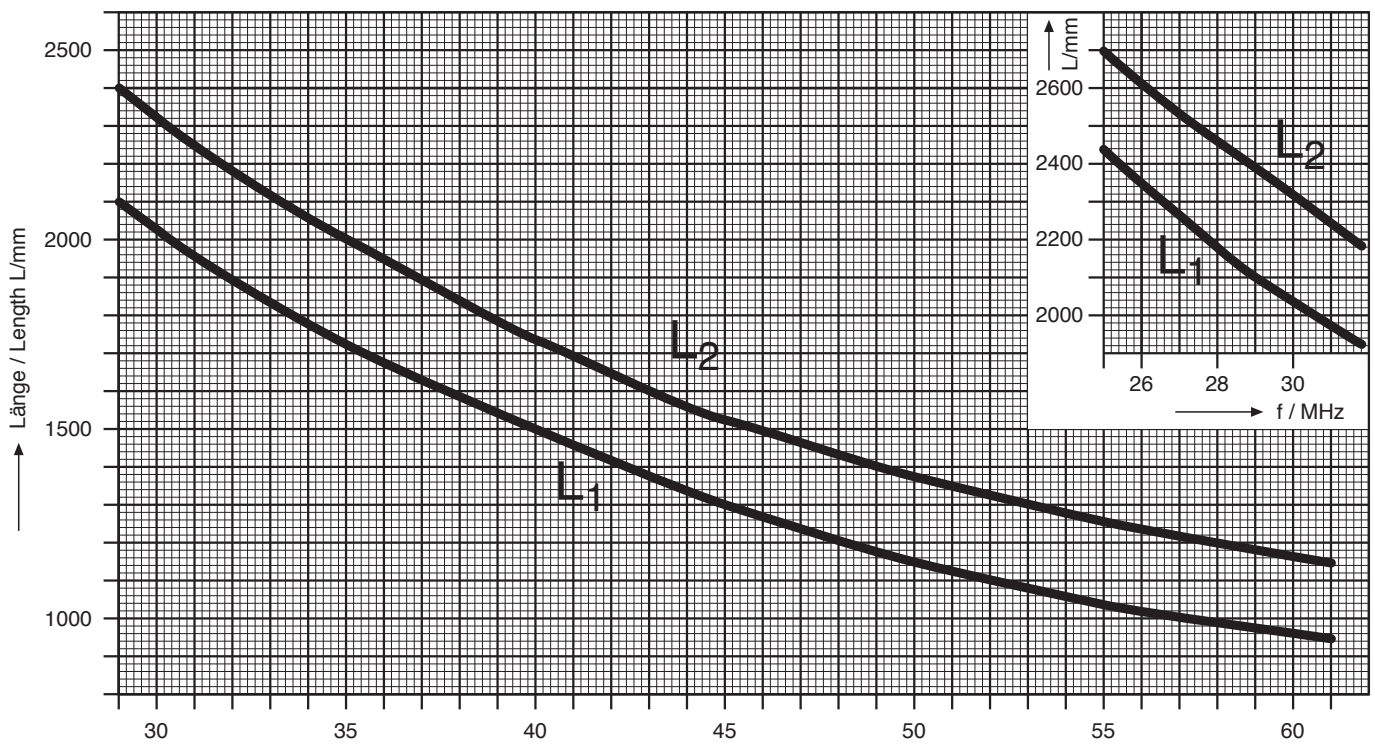
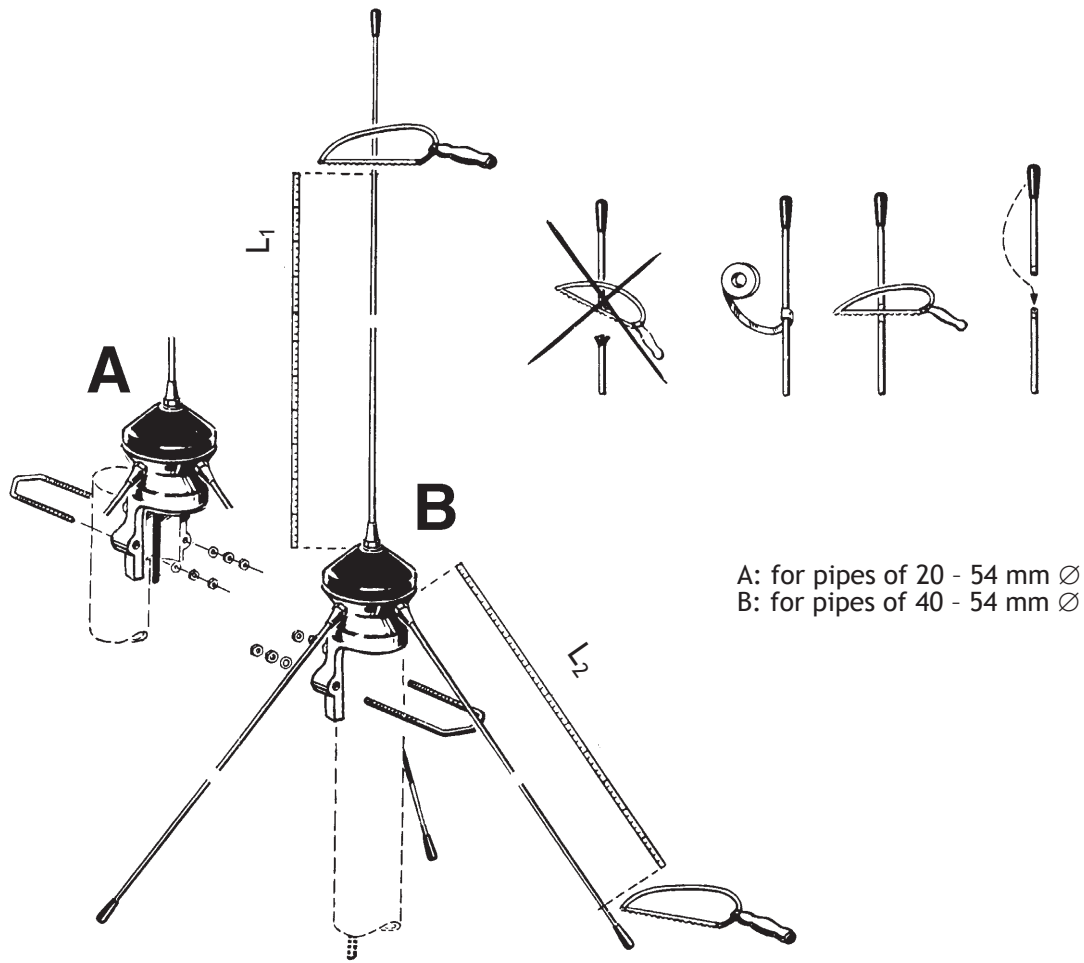


Vertical Pattern

Standing Wave Ratio (VSWR) Examples of matching at various frequencies



V pol Groundplane Antenna 25 ... 61 MHz Vertical Polarization



V pol Groundplane Antenna 27 ... 61 MHz

Vertical Polarization

The Schomandl K512472 is a tunable Groundplane antenna for a wide frequency range.

- Entire antenna at DC ground potential to prevent electrostatic noise and to improve lightning protection
- Wide frequency range achievable by cutting radials to desired length
- Variable mounting configurations allow feeder cable to be run inside or outside the support pipe.
- Stainless steel ground radials, hardware, and fastenings.

Type No.	Antenna	K 51 24 72
	Spare radials	K5124701
Frequency range		27 ... 61 MHz
Polarization		Vertical
Gain (ref. 1/2 dipole)		0 dB
Impedance		50 Ω
Max. power per input		500 W (at 50 °C ambient temperature)
Order No.		8000008

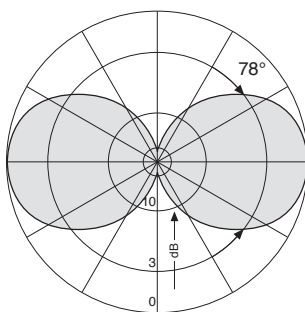
Material: Radiator and radials: Fiberglass with imbedded stranded copper wire.
Base: Aluminum.
Mounting U-bolt, all screws and nuts: Stainless steel.

Mounting: The antenna can be attached in two ways with the supplied mounting kit:
1. On the tip of a tubular mast of 40-54 mm [1.6-2.1 inches] diameter (connecting cable runs inside the mast).
2. Laterally at the tip of a tubular mast of 20-54 mm [0.8-2.1 inches] diameter (connecting cable runs outside the mast).

Radials: Tightening torque 25 Nm

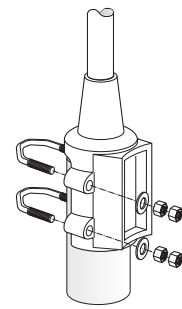
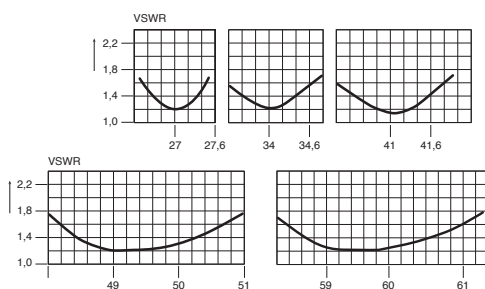
Tuning: By cutting radiator and radials to length in accordance to the mounting instructions.

Grounding: All metal parts of the antenna including the mounting kit are DC grounded.

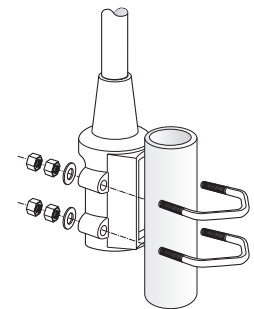


Vertical Pattern

Standing Wave Ratio (VSWR)
Examples of matching at various frequencies



On the tip of a tubular mast

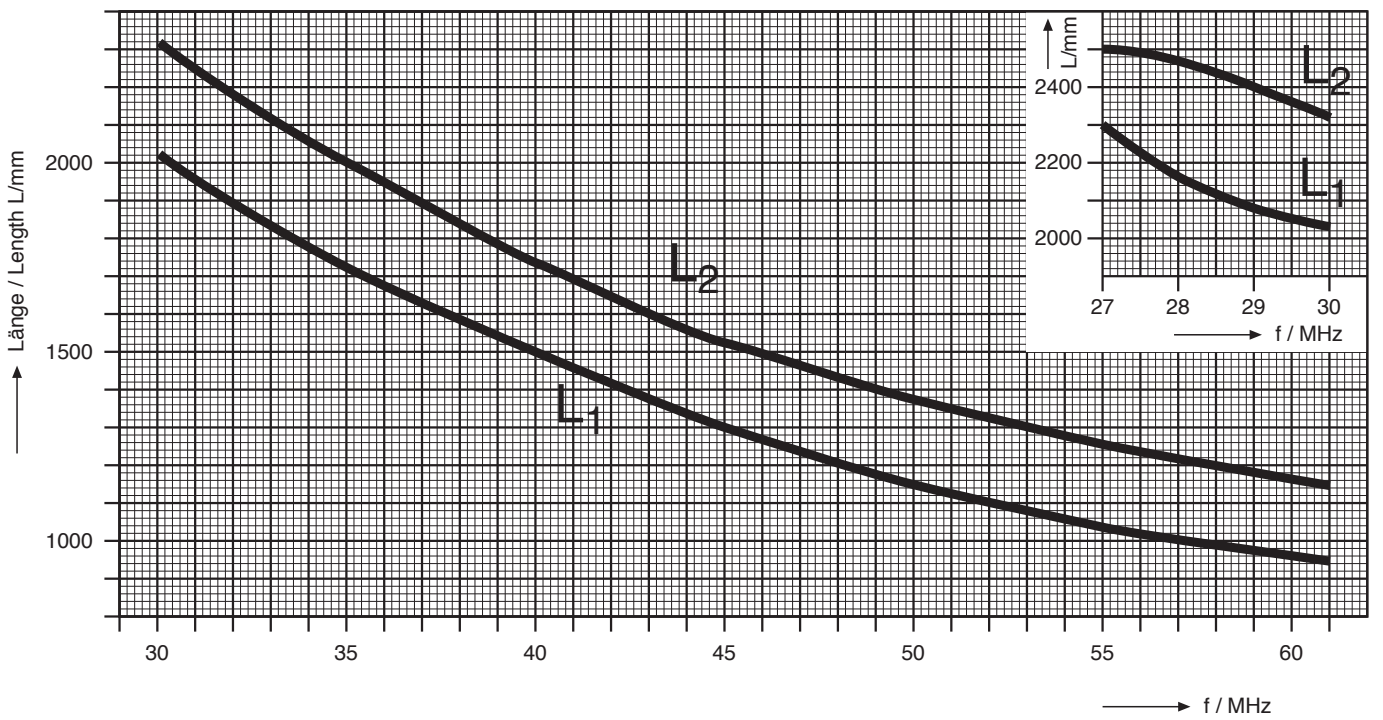
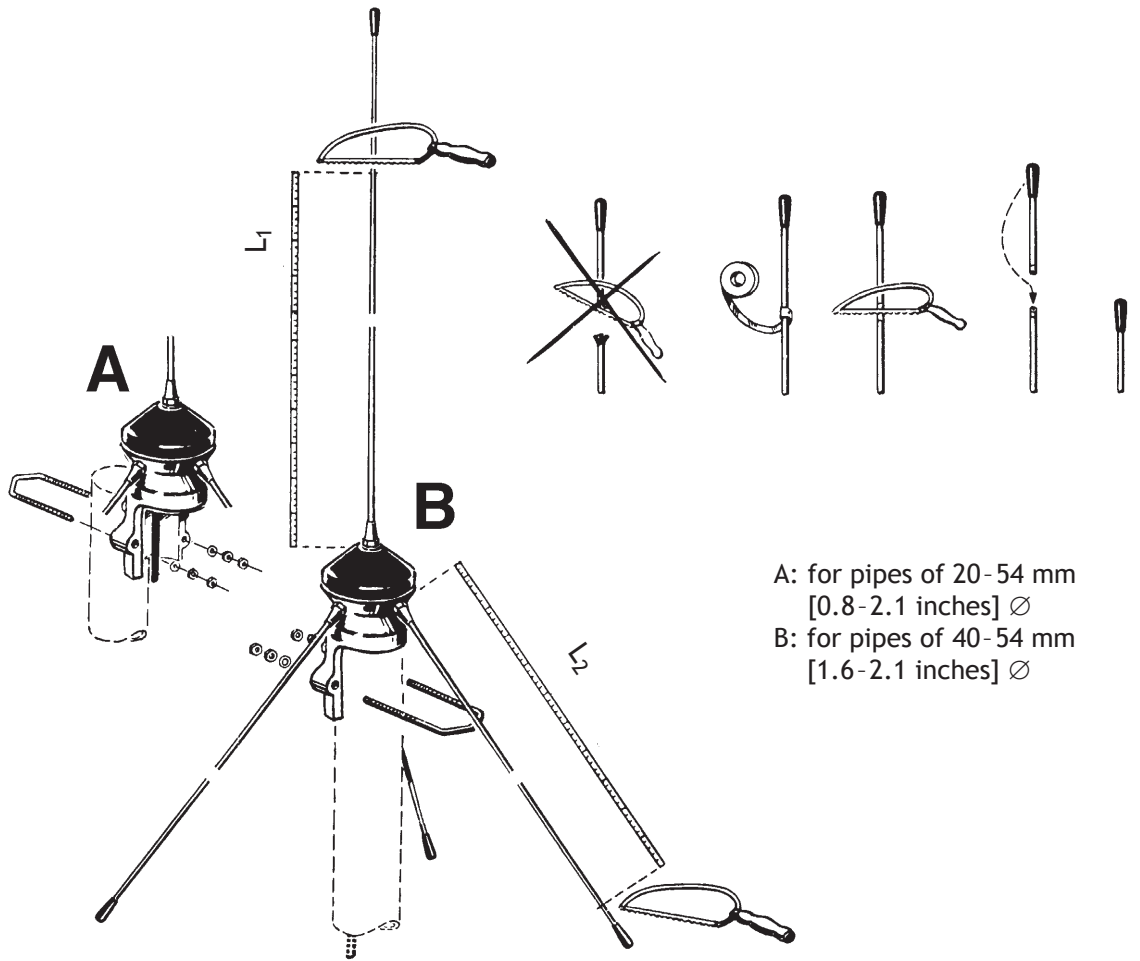


Laterally at the tip of a tubular mast

Mechanical specifications	
Input	UHF female
Wind load (N) (at 150 km/h) [lbf]	100 [25]
Max. wind velocity (km/h) [mph]	135 [84]
Radiator length (mm) [inches]	max. 2510 [98.8]
Length of radials (mm) [inches]	max. 2510 [98.8]
Weight * (kg) [lb]	1.6 [3.5]
Packing size (mm) [inches]	2704 x 136 x 100 [106.5 x 5.4 x 3.9]

* for max. antenna length

V pol Groundplane Antenna 27 ... 61 MHz Vertical Polarization



© Schomandl GmbH & Co. KG - Subject to modifications / Issue 10/2015

V pol Groundplane Antennas 68 ... 87.5 MHz Vertical Polarization

The Schomandl K5126411 and 5126421 have been deployed many times worldwide and are designed based on decades of proven reliability.

- Available in two frequency ranges to avoid tuning by cutting radials on site
- Rugged antenna with fiberglass radials
- Variable mounting configurations allow feeder cable to be run inside or outside the support pipe.

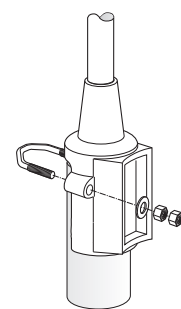
Type No.	Antenna	K 51 26 411	K 51 26 421
	Spare radials	K51264012	K51264022
Frequency range		68 - 80 MHz	74 - 87.5 MHz
Polarization		Vertical	
Gain (ref. $\lambda/2$ dipole)		0 dB	
Impedance		50 Ω	
VSWR		< 1.5	
Max. power per input		300 W (at 50 °C ambient temperature)	75 W
Order No.		80000010	80000011

Material: Radiator: Stainless steel.
Radials: Fiberglass with imbedded stranded copper wire.
Base: Aluminum.
Mounting U-bolt, all screws and nuts: Stainless steel.

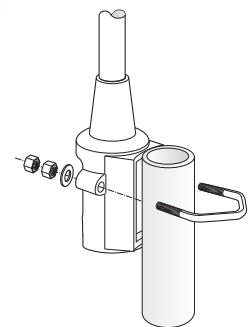
Mounting: The antenna can be attached in two ways with the supplied mounting kit:
1. On the tip of a tubular mast of 40-54 mm [1.6-2.1 inches] diameter (connecting cable runs inside the mast).
2. Laterally at the tip of a tubular mast of 20-40 mm [0.8-1.6 inches] diameter (connecting cable runs outside the mast).

Radials: Tightening torque 25 Nm

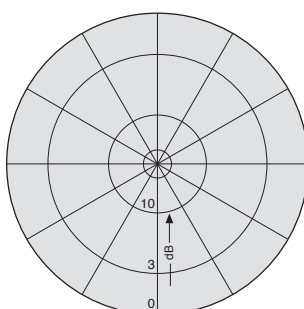
Grounding: All metal parts of the antenna including the mounting kit are DC grounded.



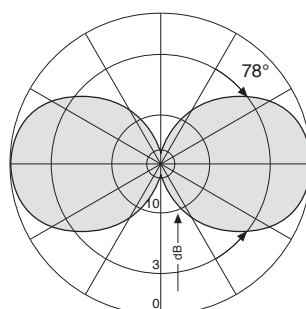
On the tip of a tubular mast



Laterally at the tip of a tubular mast



Horizontal Pattern



Vertical Pattern

Mechanical specifications	K5126411	K5126421
Input	N female	
Wind load (N) (at 150 km/h) [lbf]	70 [16]	65 [15]
Max. wind velocity (km/h) [mph]	200 [125]	
Radiator length (mm) [inches]	747 [29.5]	680 [26.8]
Length of radials (mm) [inches]	1053 [41.5]	970 [38.2]
Weight (kg) [lb]	1.8 [4.0]	1.6 [3.5]
Packing size (mm) [inches]	1114 x 132 x 112 [43.9 x 5.2 x 4.4]	

V pol Omnidirectional Sleeve Dipole Antenna Vertical Polarization 68 ... 87.5 MHz

The Schomandl sleeve dipole antennas are based on a dipole and a matching cavity. This construction helps to provide highest performance at a limited space: The narrow bandwidth of sleeve dipoles can provide an efficient pre-selection and suppress out of band emissions.

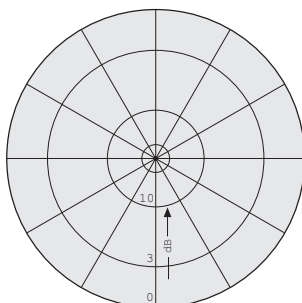
- Hot-dip galvanized steel antenna with aluminum base
- Broadband omnidirectional half-wave dipole for entire band
- Antenna is mounted with 190mm standard flange

Type No.	K 55 21 41
Input	N female
Frequency range	68 - 87.5 MHz
VSWR	< 1.5
Gain (ref. $\lambda/2$ dipole)	0 dB
Impedance	50 Ω
Polarization	Vertical
Max. power	260 Watt (at 50 °C ambient temperature)
Weight	10 kg
Wind load	200 N (at 150 km/h)
Max. wind velocity	200 km/h
Packing size	2210 x 210 x 210 mm
Antenna diameter	70 / 100 mm
Height	approx. 1980 mm
Order No.	80000856

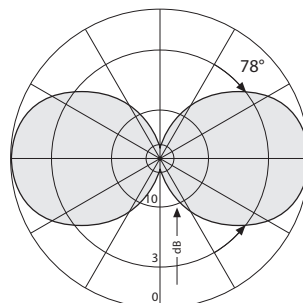


© Schomandl GmbH & Co. KG - Subject to modifications / Issue 01/2016

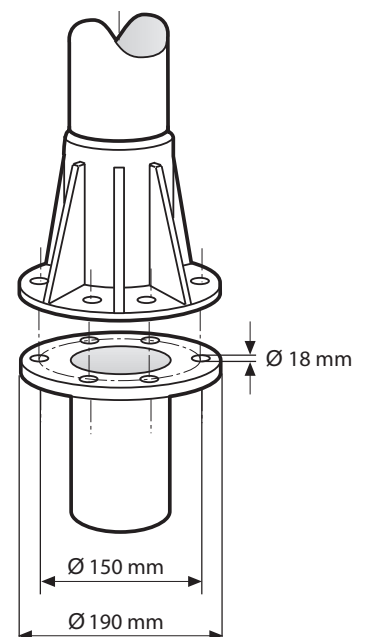
- Material:** Radiator: Hot-dip galvanized steel.
Base: Aluminum.
All screws and nuts: Stainless steel.
- Mounting:** Standard flange 190 mm diameter.
- Grounding:** All metal parts of the antenna including the mounting kit are DC grounded.
The inner conductor is capacitively coupled.



Horizontal Pattern



Vertical Pattern

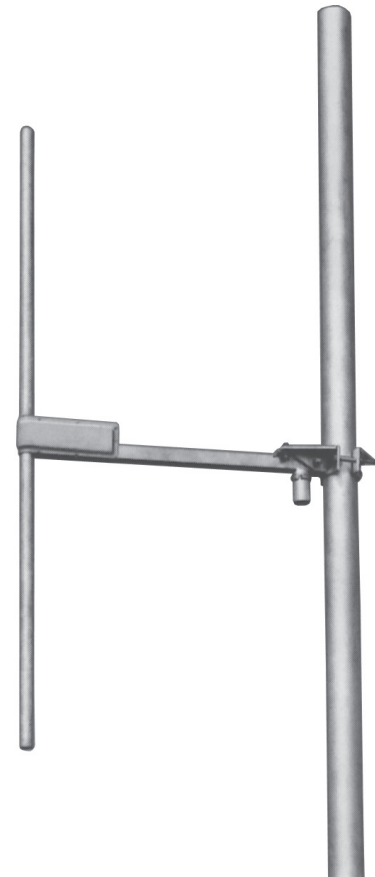


V pol Dipole Antenna 68 ... 87.5 MHz Vertical Polarization

The Schomandl K552841 is a robust dipole antenna intended for use in professional fixed-station applications in the 68-87.5 MHz band with highest performance and stability requirements.

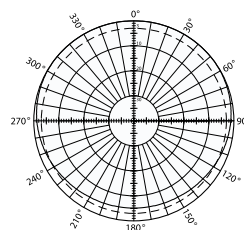
- Hot-dip galvanized steel construction
- Entire antenna at DC ground potential
- Mounting position determines preferred direction

Type No.	K 55 28 41
Frequency range	68-87.5 MHz
Gain	4 dBi
Impedance	50 ohms
VSWR	<1.5:1
Polarization	Vertical
Maximum input power	230 watts (at 50 °C)
H-plane beamwidth	180° (half-power)
E-plane beamwidth	78° (half-power)
Connector	N female
Weight	9 kg (19.8 lb)
Dimensions (approx.)	1750 x 870 mm (68.9 x 34.3 inches)
Wind load	at 150 km/h (93 mph) 165 N (38 lbf)
Wind survival rating*	200 km/h (120 mph)
Shipping dimensions	1800 x 948 x 107 mm (70.9 x 37.3 x 4.2 inches)
Shipping weight	11 kg (24.3 lb)
Mounting	For masts of 60 to 115 mm (2.375 to 4.5 inches) OD.
Order No.	80000012

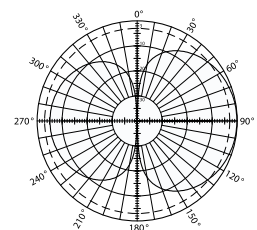


© Schomandl GmbH & Co. KG - Subject to modifications / Issue 10/2015

* Mechanical design is based on environmental conditions as stipulated in TIA-222-G-2 (December 2009) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity.

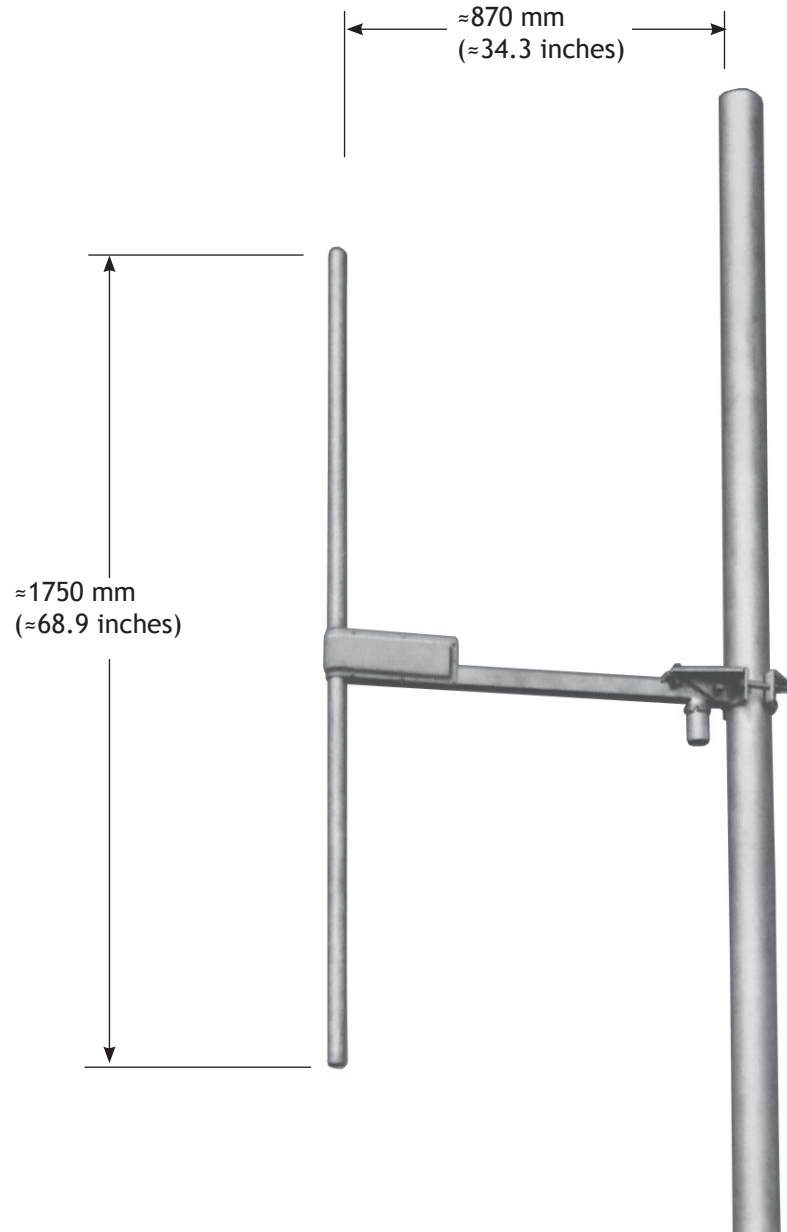


Horizontal pattern



Vertical pattern

V pol Dipole Antenna 68 ... 87.5 MHz Vertical Polarization



V pol Dual Band Groundplane Antenna

74.2 ... 87.5 MHz/ 167.5 - 174 MHz

The Schomandl K5125421 covers two of the most important PMR frequency bands within one compact antenna.

- Rugged two-range groundplane antenna with fiberglass radials
- Stainless steel, hardware and fastenings.
- Possibility to fold the radials into different directions to decrease space requirements
- Feed via two separate N female connectors

Type No.	Antenna	K 51 25 42 1	
Spare radials		K 51 25 40 2	
Input		2 x N female	
Frequency range		74.2 - 77.7 MHz and 84.0 - 87.5 MHz	167.5 - 174 MHz
Gain (ref. 1/2 dipole)		0 dB	0.5 dB
VSWR		< 1.5	
Impedance		50 Ω	
Polarization		Vertical	
Max. power		10 Watt (at 50 °C ambient temperature)	
Decoupling		< 30 dB between 2 m band and 4 m band	
Weight		2.7 kg	
Wind load		90 N (at 150 km/h)	
Max. wind velocity		180 km/h	
Packing size		1160 x 120 x 110 mm	
Radiator length		1121 mm	
Diameter		50 mm	
Length of radials		1003 mm	
Order No.		80000009	

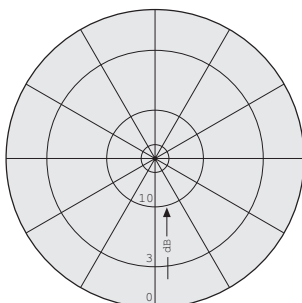


Material: Radiator: Weather-resistant aluminum in fiberglass radome.
Radials: Fiberglass with imbedded stranded copper wire.
Base: Aluminum.
Mounting U-bolt and all screws and nuts: Stainless steel.
Mounting: To pipes of 30 - 54 mm diameter by means

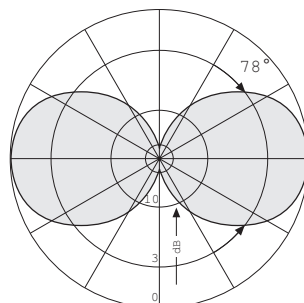
Mounting: To pipes of 30 - 54 mm diameter by means of mounting kit (supplied). The antenna must be mounted in such a manner, that the feeder cables runs outside the mast.

Special features: The radials can be folded up.

Grounding: All metal parts of the antenna including the mounting kit are DC grounded.



Horizontal Pattern



Vertical Pattern

V pol Groundplane Antenna 146 - 174 MHz Vertical Polarization

The Schomandl 711 530 and K51262 omni-directional groundplane antennas are intended for use in professional fixed-station applications in the 146-174 MHz band.

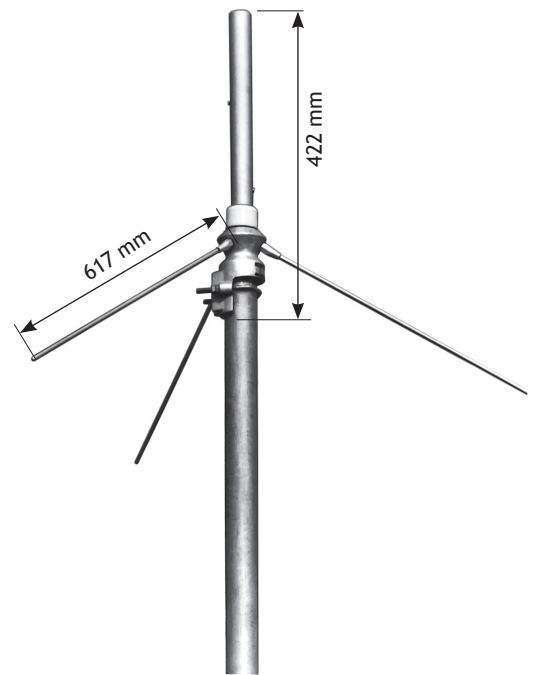
- Design based on decades of proven reliability.
- Easy installation, no cutting of radials on site necessary.
- Variable mounting configurations allow feeder cable to be run inside or outside the support pipe.
- Stainless steel ground radials, hardware, and fastenings.

Type No.	Antenna Spare radials	K 51 26 2	711 530
		K 51 26 20 2	K 51 26 20 2
Input		By means of a cable RG-213/U with termination inside antenna.	N female
Frequency range		146 - 174 MHz	
Gain (ref. $\lambda/2$ dipole)		0 dB	
VSWR		< 1.5	
Impedance		50 Ω	
Polarization		Vertical	
Max. power		170 Watt	700 Watt
		(at 50 °C ambient temperature)	
Weight		1.2 kg	
Wind load		25 N (at 150 km/h)	
Max. wind velocity		200 km/h	
Packing size		654 x 112 x 97 mm	
Radiator length		422 mm	
Length of radials		617 mm	
Order No.		80000013	80000014

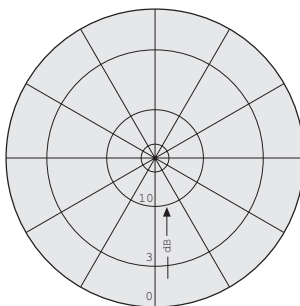
Material: Radiator and radials: Weather-resistant aluminum.
Mounting U-bolt and all screws and nuts: Stainless steel.

Mounting: The antenna can be attached in two ways with the supplied mounting kit:
1. On the tip of a tubular mast of 40 - 54 mm diameter (connecting cable runs inside the mast).
2. Laterally at the tip of a tubular mast of 20 - 54 mm diameter (connecting cable runs outside the mast).

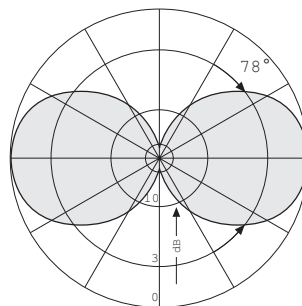
Grounding: - Entire antenna at DC ground potential to prevent electrostatic noise and to improve lightning protection
The inner conductor is capacitively coupled.



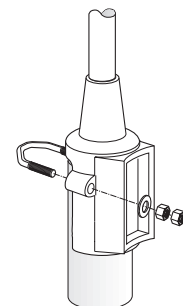
© Schomandl GmbH & Co. KG - Subject to modifications / Issue 10/2015



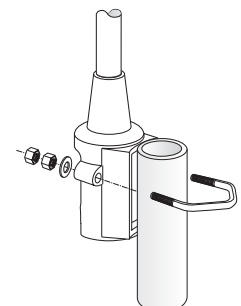
Horizontal Pattern



Vertical Pattern

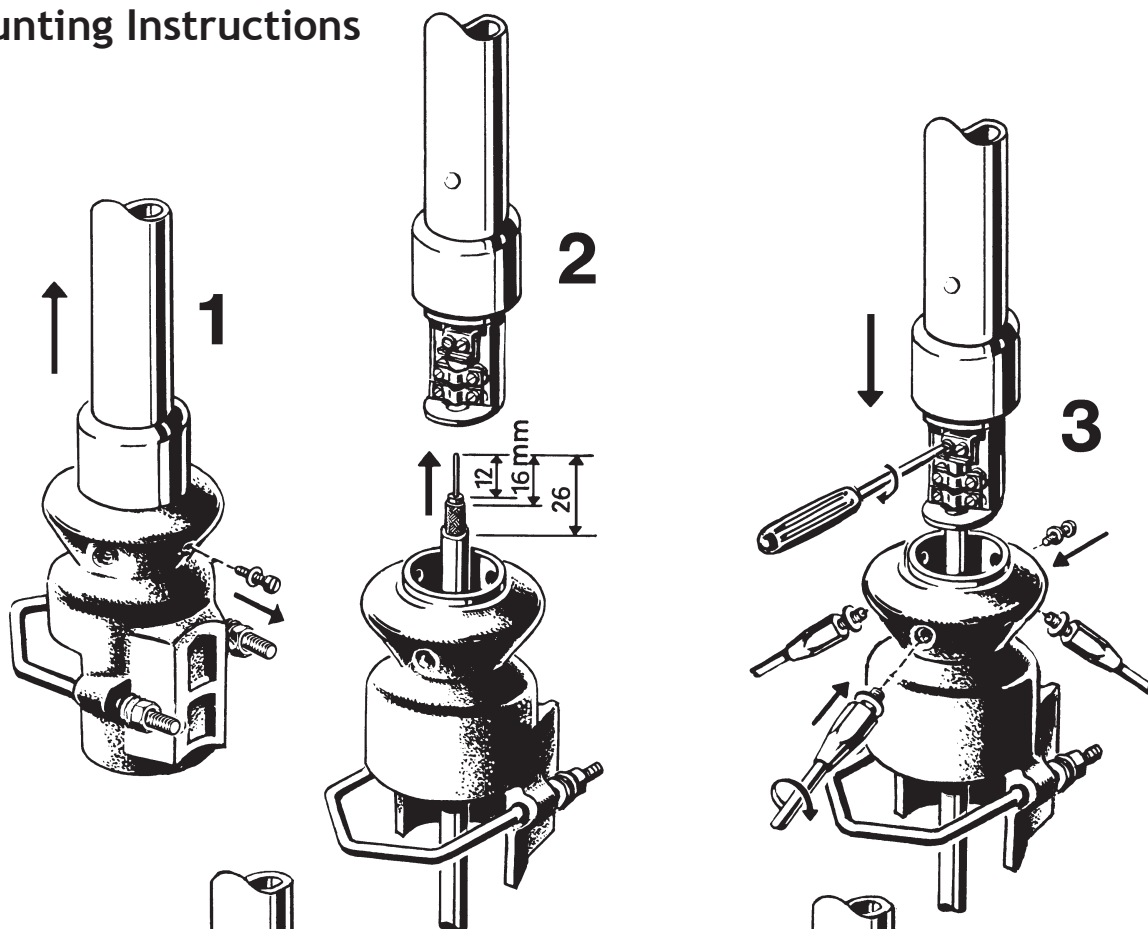


On the tip of a tubular mast

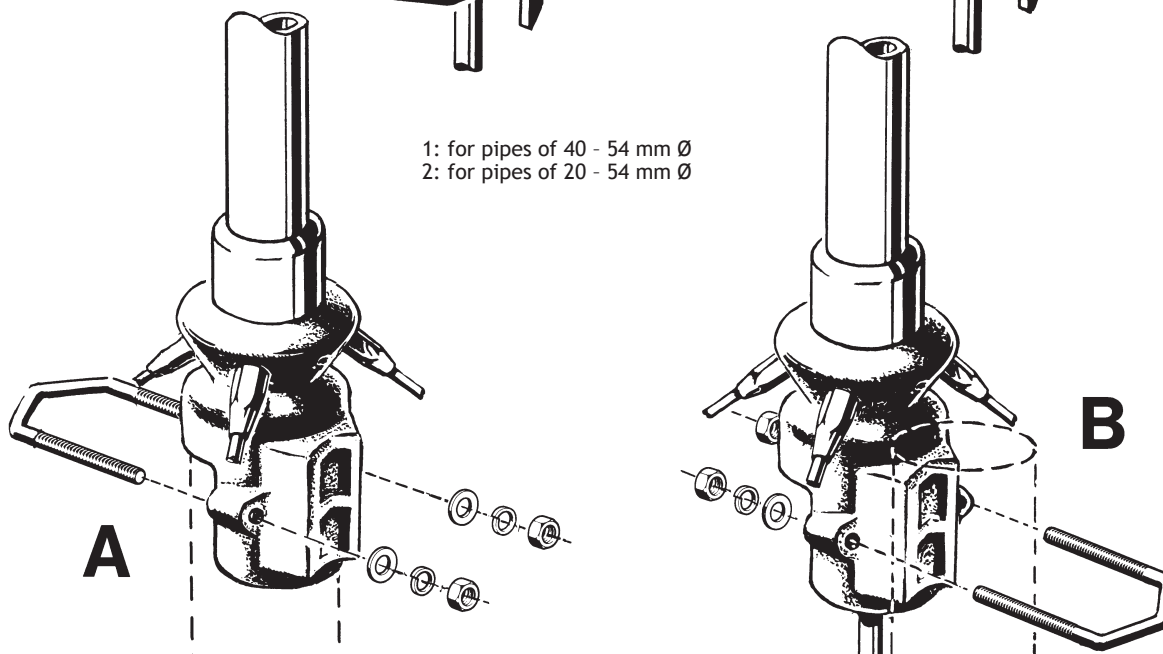


Laterally at the tip of a tubular mast

Mounting Instructions



1: for pipes of 40 - 54 mm Ø
2: for pipes of 20 - 54 mm Ø



For antennas with N-female connector (jack) we recommend using cable connectors (male plug) with captive inner conductor to avoid damages to the jack-center conductor.

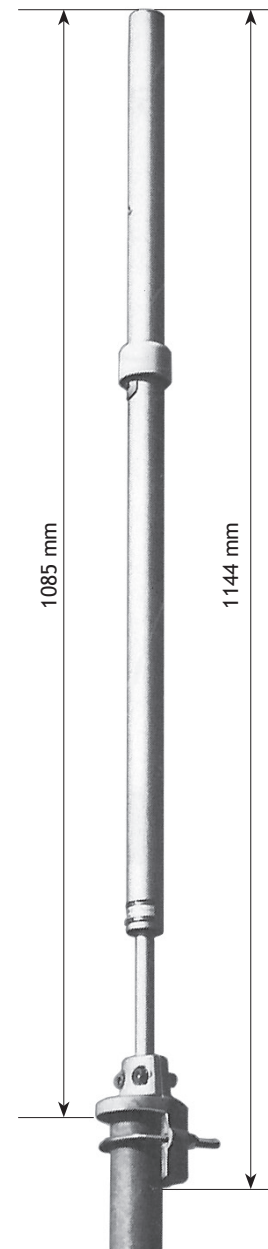
V pol Omni Sleeve Dipole Antennas

Vertical Polarization 146 ... 174 MHz

The Schomandl sleeve dipole antennas are based on a dipole and a matching cavity. This construction helps to provide highest performance at a limited space: The narrow bandwidth of sleeve dipoles can provide an efficient pre-selection and suppress out of band emissions.

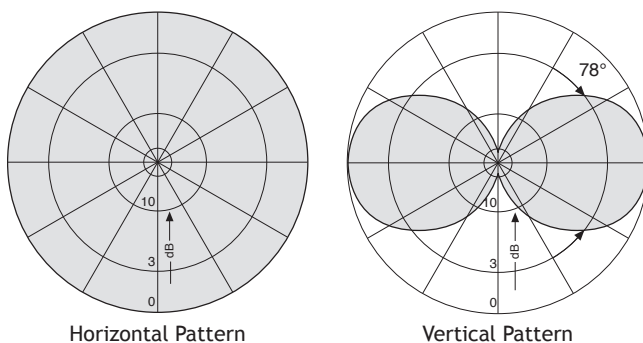
- Aluminum omnidirectional antenna
- Direct cable connection without connector.
- Three separate models for the 146-174 MHz band available

Type No.	K 55 26 26	K 55 26 27	K 55 26 28
Frequency range	146 - 156 MHz	155 - 165 MHz	164 - 174 MHz
Gain (ref. $\lambda/2$ dipole)	0 dB		
VSWR	< 1.6		
Impedance	50 Ω		
Polarization	Vertical		
Max. power	130 W (at 50 °C ambient temperature)		
Order No.	80000015	80000016	80000017



K552626

Radiation Pattern (at mid-band)



Horizontal Pattern

Vertical Pattern

Mechanical specifications	K552626	K552627	K552628
Input	Via terminals inside antenna.		
Cable needed	RG-213/U		
Weight	1.3 kg		
Wind load	50 N (at 150 km/h)		
Max. wind velocity	200 km/h		
Packing size	1254 x 112 x 97 mm		
Height	1085 mm	1042 mm	993 mm

V pol Omnidirectional Colinear Antenna Vertical Polarization 146 ... 174 MHz

The Schomandl K 55 16 21 1/2/3 are omnidirectional gain antennas for many professional fixed-station applications. With their aluminum alloy base, the products can be easily mounted in nearly any situation.

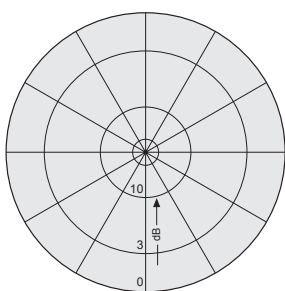
- Colinear Antennas with stacked design for flat vertical pattern
- Rugged grey fiberglass radome for enduring performance
- For superior VSWR performance, the products are available in three different frequency ranges covering the full VHF band

Type No.	K 55 16 21 1	K 55 16 22 1	K 55 16 23 1
Frequency range	146 - 155 MHz	155 - 164 MHz	164 - 174 MHz
Input	N female		
VSWR	< 1.5		
Gain (ref. $\lambda/2$ dipole)	4 dB		
Impedance	50 Ω		
Polarization	Vertical		
Max. power	500 W (at 50 °C ambient temperature)		
Weight	7 kg	6,5 kg	6,5 kg
Wind load	220 N	210 N	200 N
		(at 150 km/h)	
Max. wind velocity		150 km/h	
Packing size (l)	4850 mm	4600 mm	4350 mm
Packing size (w x d)		160 x 160 mm	
Antenna height	4780 mm	4530 mm	4275 mm
Diameter		max. 52 mm	
Order no.	80000857	80000858	80000859

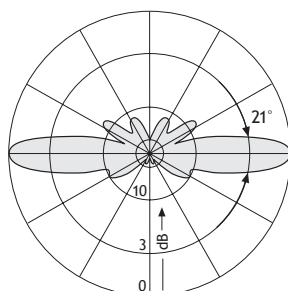
Material:
 Radiator: Brass.
 Radome: Fiberglass, colour: Grey.
 Base: Aluminum.
 Mounting U-bolt and all screws and nuts: Stainless steel.

Mounting:
 The antenna can be attached in two ways with the supplied mounting kit:
 1. On the tip of a tubular mast of 65 - 105 mm diameter (connecting cable runs inside the mast).
 2. Laterally at the tip of a tubular mast of 30 - 90 mm diameter (connecting cable runs outside the mast).

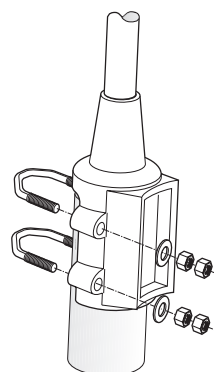
Grounding:
 All metal parts of the antenna including the mounting kit are DC grounded.



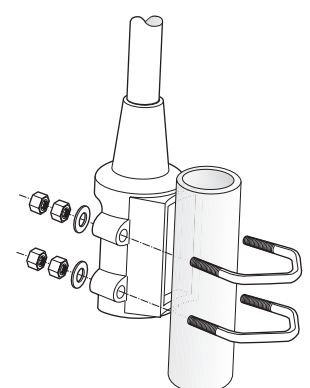
Horizontal Pattern



Vertical Pattern



On the tip of a tubular mast



Laterally at the tip of a tubular mast

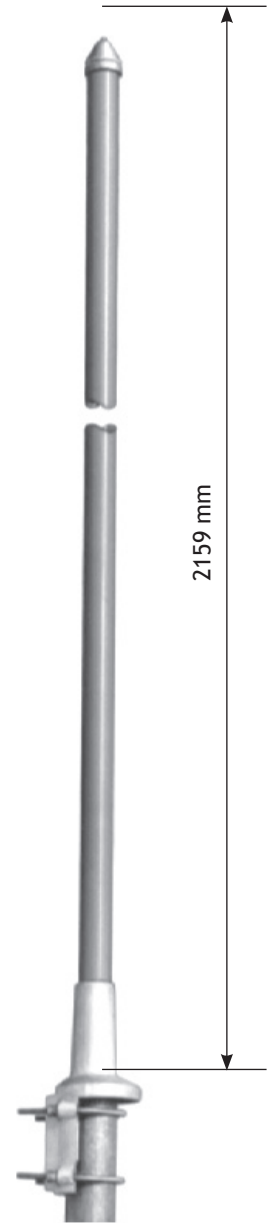
V pol Omnidirectional Colinear Antenna

161 ... 162 MHz / 169 - 170 MHz

The Schomandl 736931 VHF antenna is intended for digital POCSAG paging networks for public safety applications

- Colinear Antennas with stacked design for flat vertical pattern
- Rugged grey fiberglass radome for enduring performance
- Optimized for POCSAG paging frequencies

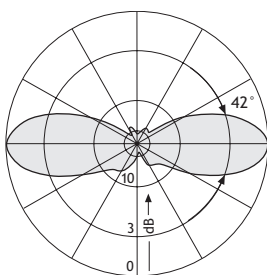
Type No.	736 931
Input	7 - 16 female
Frequency range	161 - 162 MHz / 169 - 170 MHz
VSWR	< 1.5
Gain (ref. $\lambda/2$ dipole)	1.5 dB
Impedance	50 Ω
Polarization	Vertical
Max. power	600 W (at 25 °C ambient temperature) 500 W (at 50 °C ambient temperature)
Weight	6 kg
Wind load	170 N (at 150 km/h)
Max. wind velocity	200 km/h
Packing size	2340 x 183 x 137 mm
Antenna height	2159 mm
Diameter	51 mm
Order no.	80000860



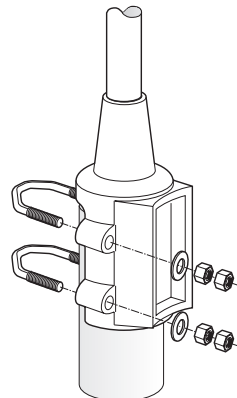
Material: Radiator: Copper and brass.
Radome: Fiberglass, colour: Grey.
Base: Aluminum.
Mounting U-bolt and all screws and nuts: Stainless steel.

Mounting: The antenna can be attached in two ways with the supplied mounting kit:
1. On the tip of a tubular mast of 65 - 105 mm diameter (connecting cable runs inside the mast).
2. Laterally at the tip of a tubular mast of 30 - 90 mm diameter (connecting cable runs outside the mast).

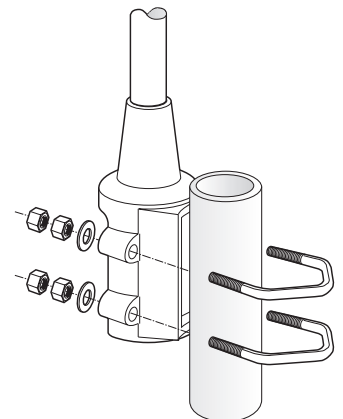
Grounding: All metal parts of the antenna including the mounting kit are DC grounded.
Grounding cross-section: 28 mm² copper.



Vertical Pattern
169 - 170 MHz



On the tip of a tubular mast



Laterally at the tip of a tubular mast

V pol Dipole Antenna 146 ... 174 MHz Vertical Polarization

The Schomandl K552921 is a robust dipole antenna intended for use in professional fixed-station applications in the 146-174 MHz band with highest performance and stability requirements.

- Hot-dip galvanized steel construction
- Entire antenna at DC ground potential
- Mounting position determines preferred direction

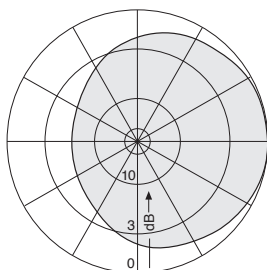
Type No.	K 55 29 21
Input	N female
Frequency range	146 - 174 MHz
VSWR	< 1.4
Gain (ref. $\lambda/2$ dipole)	2 dB
Impedance	50 Ω
Polarization	Vertical
Max. power	440 W (at 50 °C ambient temperature)
Radiation Pattern	Preferred direction: Mast to radiator
Weight	4.5 kg
Wind load	90 N (at 150 km/h)
Max. wind velocity	200 km/h
Mast diameter	60 - 125 mm
Packing size	864 x 598 x 87 mm
Dipole length	840 mm
Distance dipole/mast	500 mm
Order no.	80000019

Material: Hot-dip galvanized steel.
All screws and nuts: Stainless steel.

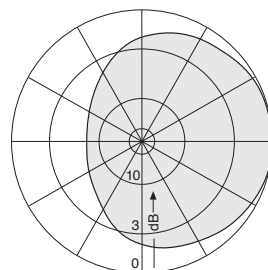
Mounting: On masts of 60 - 125 mm diameter clamp supplied.

Grounding: All metal parts of the antenna including the mounting kit are DC grounded.

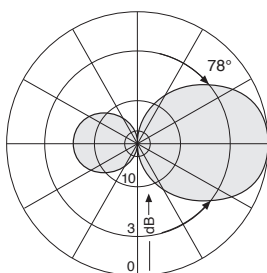
Radiation Pattern with different mast diameters:



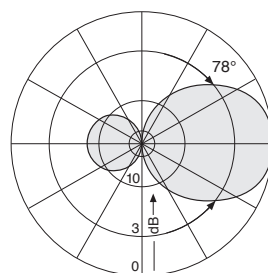
Horizontal Pattern
60 mm diameter



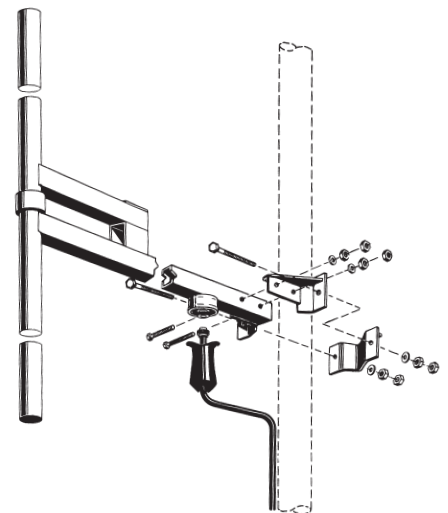
Horizontal Pattern
115 mm diameter



Vertical Pattern
60 mm diameter



Vertical Pattern
115 mm diameter



For antennas with N female connector (jack) we recommend using cable connectors (male plug) with captive inner conductor to avoid damages to the jack center conductor.

V pol Dipole Colinear Antenna Vertical Polarization 146 ... 174 MHz

Schomandl's K 55 31 21 combines two dipoles in a colinear order to an antenna with unique performance:

- Main direction determined by dipole position towards the mast
- Very flat and vertical pattern with high gain
- Hot-dip galvanized steel construction
- Entire antenna at DC ground potential

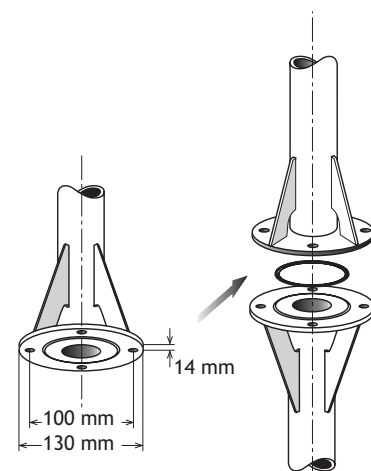
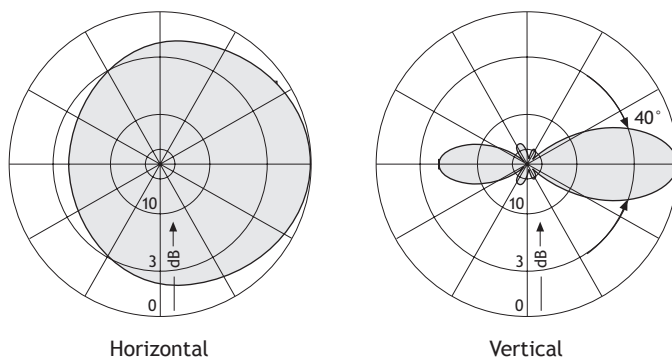
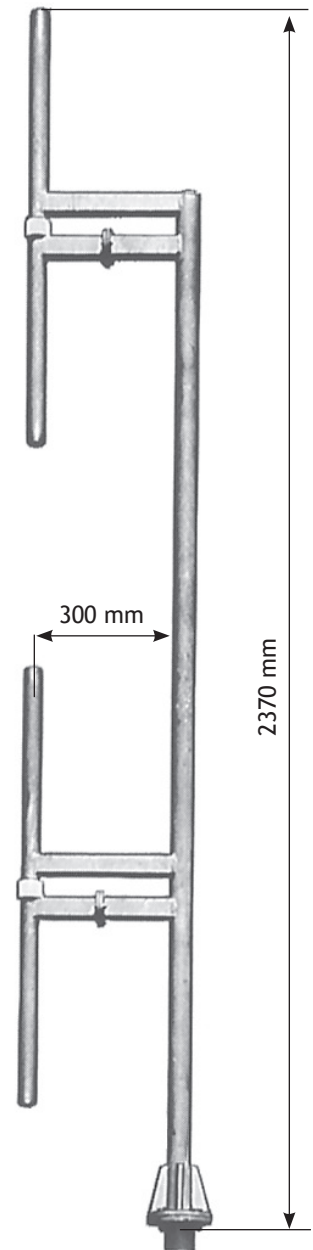
Type No.	K 55 31 21
Input	N female
Frequency range	141 - 180 MHz but preferred range 146 - 174 MHz
VSWR	< 1.3
Gain (bez. $\lambda/2$ -dipole)	5 dB
Impedance	50 Ω
Polarization	Vertical
Max. power	110 W (at 50 °C ambient temperature)
Weight	13 kg
Wind load	Frontal: 200 N (at 150 km/h) Lateral: 250 N (at 150 km/h)
Max. wind velocity	200 km/h
Packing size	2400 x 420 x 150 mm
Order No.	80000861

Material: Hot-dip galvanized steel.
All screws and nuts: Stainless steel.

Mounting: Via standard flange 130 mm diameter.

Special features: Preferred direction: Mast to radiator (see diagram).
Cable connection: The jack is mounted inside the mast near the flange.

Grounding: All metal parts of the antenna including the inner conductor and the supplied mounting hardware are DC grounded.



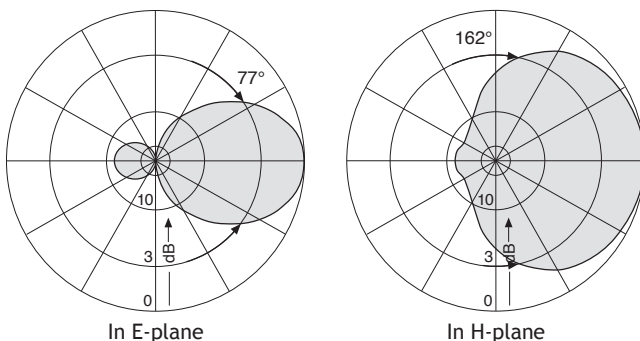
2-Element Yagi Antenna 68 ... 87.5 MHz Vertical / Horizontal Polarization

The Schomandl K5319411 and K5319421 are robust yagi antennas intended for use in professional fixed-station applications with highest performance and stability requirements in the 68-87.5 MHz band.

- 2 Element Yagi with 162° beam width
- Rugged hot-dip galvanized steel construction
- Entire antenna at DC ground potential
- Two separate models for the upper and lower frequency range

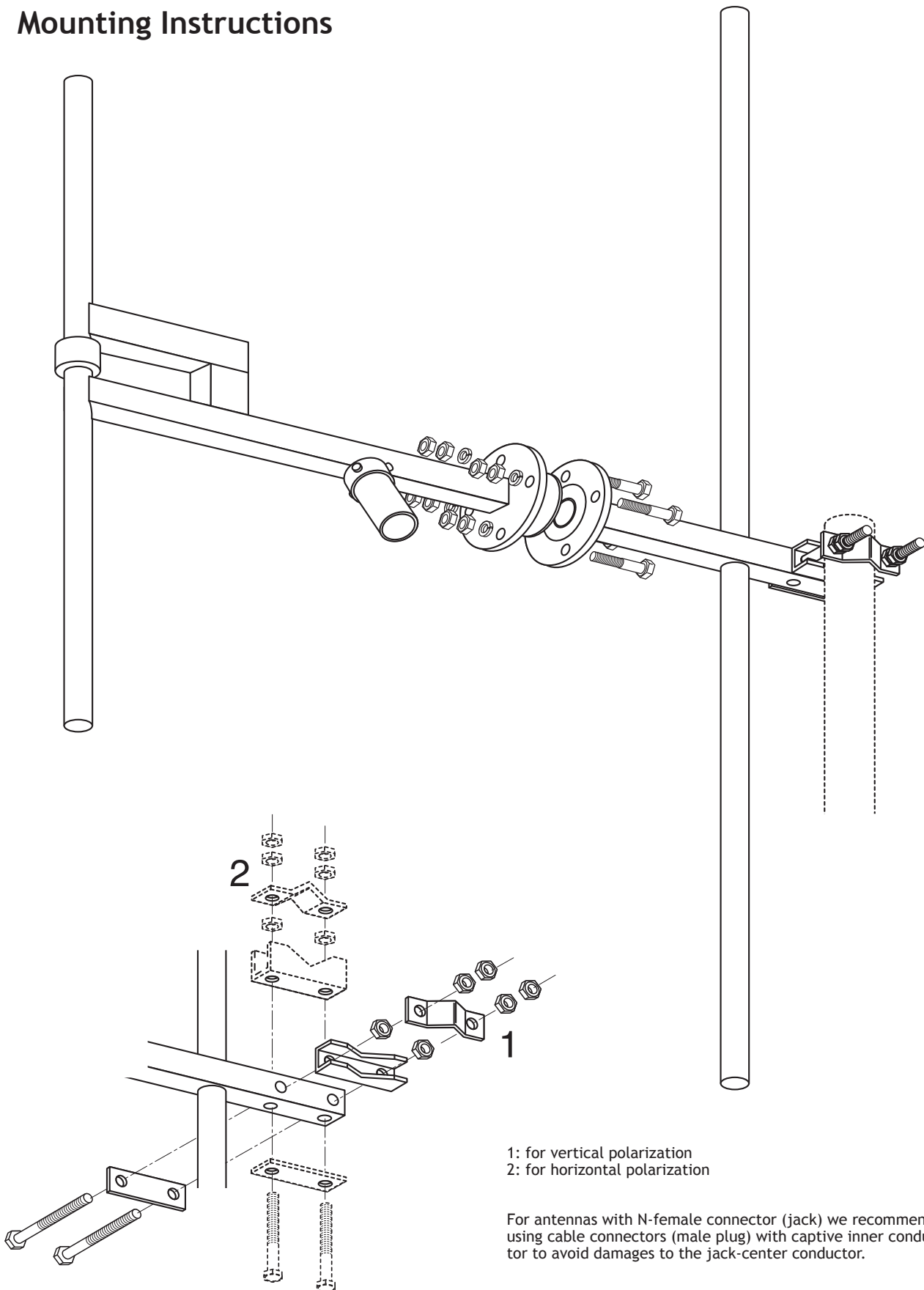
Type No.	K 53 19 411	K 53 19 421
Frequency range	68 - 80 MHz	74 - 87.5 MHz
Polarization	Usable for horizontal or vertical polarization	
Gain (ref. $\lambda/2$ dipole)	3 dB	
Impedance	50 Ω	
VSWR	< 1.5	
Max. power	1300 W (at 50 °C ambient temperature)	
Order No.	80000001	80000002

Material:	Hot-dip galvanized steel. All screws and nuts: Stainless steel.
Mounting:	On masts from 60 - 115 mm [2.4-4.5 inches] diameter, clamps supplied.
Grounding:	All metal parts of the antenna including the mounting kit are DC grounded. The inner conductor is coupled capacitively.
Special features:	The antenna will be shipped dismounted.



Mechanical specifications	
Input	N female
Wind load (at 150 km/h)	260 [58]
Max. wind velocity	180 [112]
Height	approx. 2100 [82.7]
Distance dipole/mast	approx. 1200 [47.2]
Weight	12 [26.5]
Packing size	2154 x 798 x 132 [84.8 x 31.4 x 5.2]

Mounting Instructions

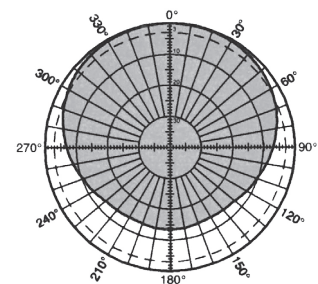


4-Element Yagi Antenna 68 ... 87.5 MHz Vertical Polarization

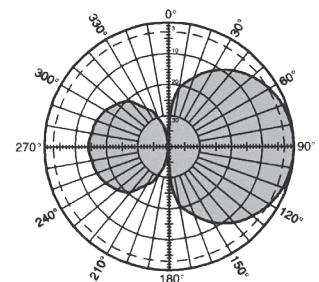
The Schomandl K531741 yagi antenna is intended for use in professional fixed-station applications in the 68-87.5 MHz band.

- 4 Element Yagi with 120° beam width
- Rugged hot-dip galvanized steel construction.
- Entire antenna at DC ground potential.

Type No.	K 53 17 41
Frequency range	68-87.5 MHz
Gain	8 dBi
Impedance	50 ohms
VSWR	<1.5:1
Polarization	Vertical
Maximum input power	150 watts (at 50 °C)
H-plane beamwidth	Varies with frequency
E-plane beamwidth	Varies with frequency
Connector	N female
Weight	22 kg (48.5 lb)
Dimensions (approx.)	2380 x 2030 mm (93.7 x 79.9 inches)
Wind load	at 150km/h (93 mph) 520 N (117 lbf)
Wind survival rating*	180 km/h (110 mph)
Shipping dimensions	2424 x 2118 x 182 mm (95.4 x 83.4 x 7.2 inches)
Shipping weight	25 kg (55.1 lb)
Mounting	For masts of 60 to 115 mm (2.375 to 4.5 inches) OD.
Order No.	80000003



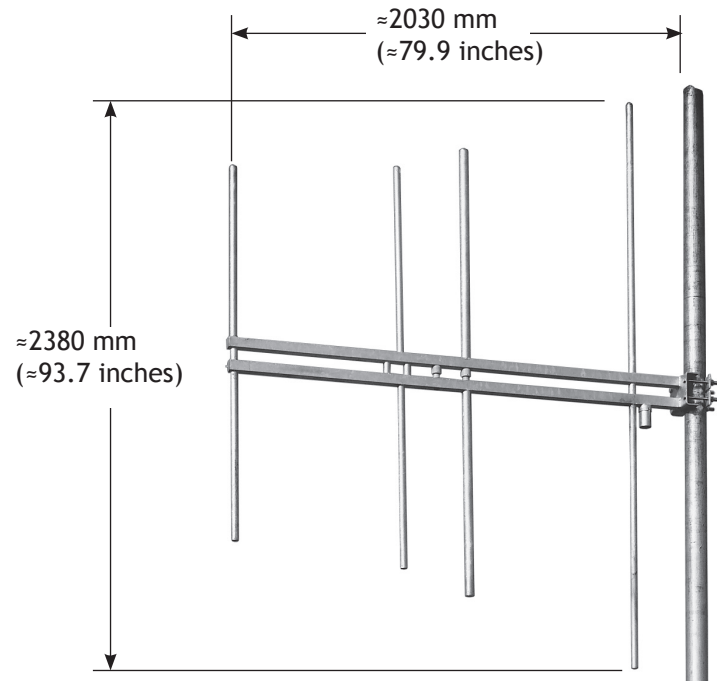
H-plane
Horizontal Pattern – V-polarization
77 MHz



E-plane
Vertical Pattern – V-polarization
77 MHz

* Mechanical design is based on environmental conditions as stipulated in TIA-222-G-2 (December 2009) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity.

4-Element Yagi Antenna 68 ... 87.5 MHz Vertical Polarization



V pol Bidirectional Dipole Antenna Vertical Polarization 146 ... 174 MHz

The Schomandl K 53 00 21 is a robust bidirectional dipole antenna intended for use in professional fixed-station applications in the in the 146-174 MHz band.

- Horizontal pattern with two main directions, ideal for highways, railroads etc.
- Hot-dip galvanized steel construction
- Entire antenna at DC ground potential

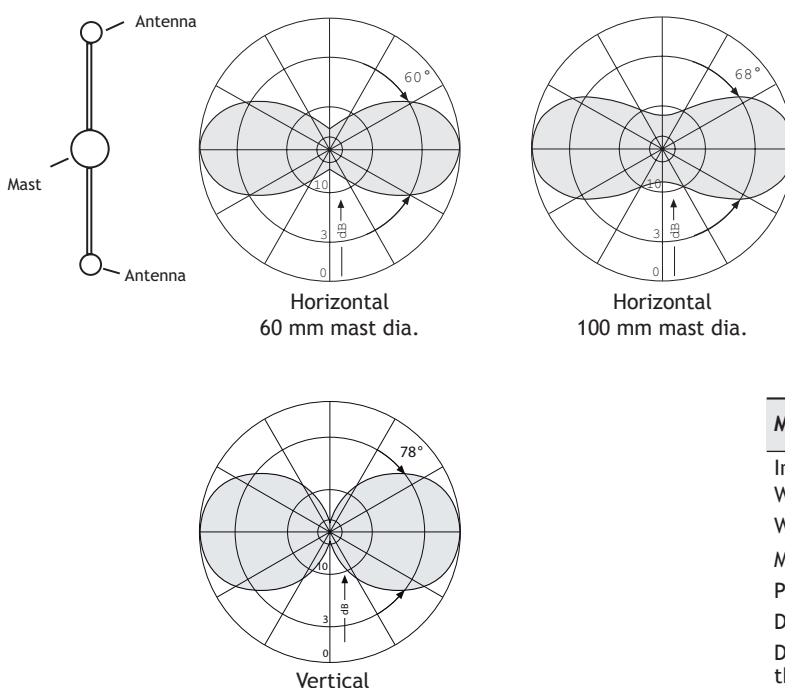


Type No.	K 53 00 21
Frequency range	146 - 174 MHz
Polarization	Vertical
Gain (ref. $\lambda/2$ dipole)	3 dB
Radiation Pattern	The mainbeam direction of the antenna is orthogonal to both dipoles.
Impedance	50 Ω
WSWR	< 1.5
Max. power	340 W (at 50 °C ambient temperature)
Order no.	80000862

Material: Hot-dip galvanized steel.
All screws and nuts: Stainless steel.

Mounting: On masts from 60 - 125 mm dia., clamps supplied. The antenna shall be clamped at the mast top.

Grounding: All metal parts of the antenna including the mounting kit are DC grounded.



Mechanical specifications	
Input	N female
Weight	7 kg
Wind load	175 N (at 150 km/h)
Max. wind velocity	220 km/h
Packing size	1110 x 910 x 140 mm
Dipole length	892 mm
Distance between the two dipoles	972 mm

2-Element Yagi Antenna 146 ... 174 MHz Vertical / Horizontal Polarization

The Schomandl K531921 is a robust yagi antenna intended for use in professional fixed-station applications with highest performance and stability requirements in the 146-174 MHz band.

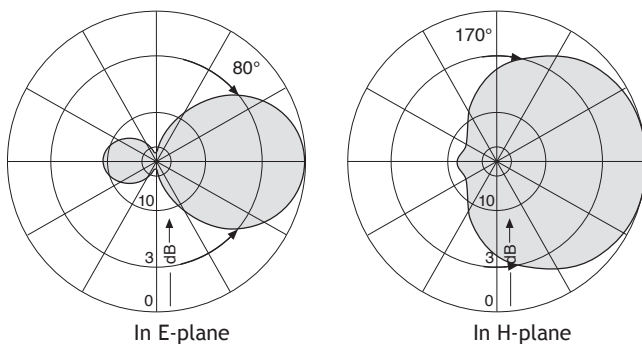
- 2 Element Yagi with 170° beam width
- Rugged hot-dip galvanized steel construction.
- Entire antenna at DC ground potential.

Type No.	K 53 19 21
Frequency range	146 - 174 MHz
Polarization	Usable for horizontal or vertical polarization
Gain (ref. $\lambda/2$ dipole)	3 dB
Impedance	50 Ω
VSWR	< 1.4
Max. power	560 W (at 50 °C ambient temperature)
Order No.	80000004

Material: Hot-dip galvanized steel.
All screws and nuts: Stainless steel.

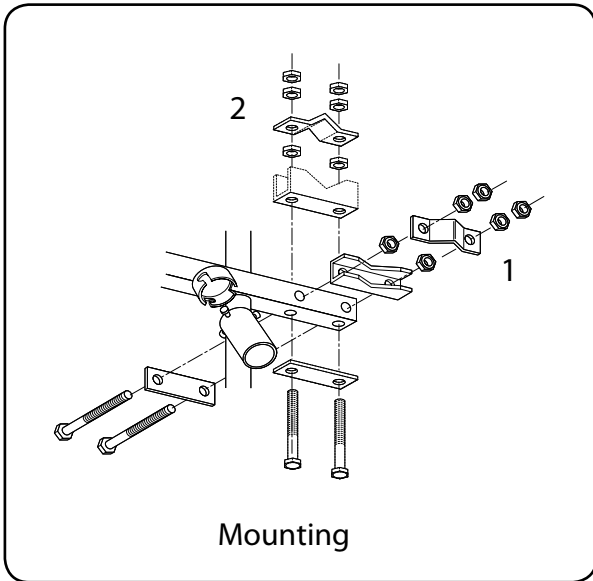
Mounting: On masts from 60-125 mm [2.4-4.9 inches] diameter, clamps supplied.

Grounding: All metal parts of the antenna including the mounting kit are DC grounded.



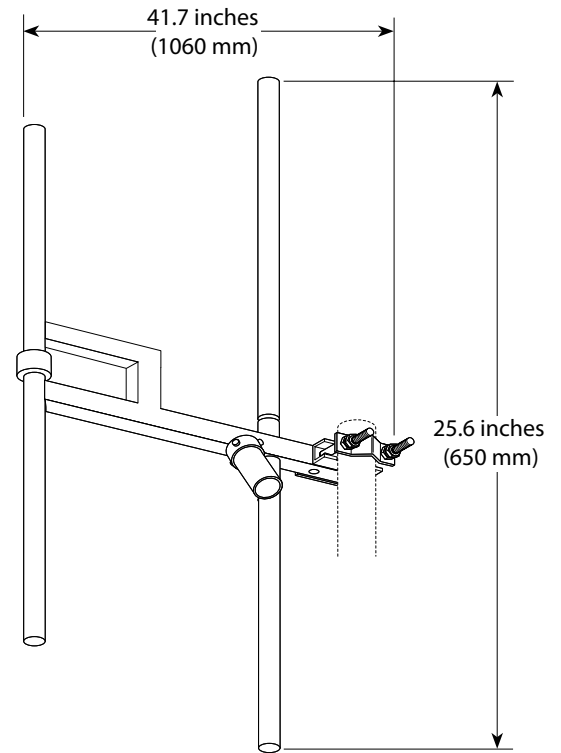
Mechanical specifications		N female
Input		N female
Wind load (N) (at 150 km/h) [lbf]		145 [33]
Max. wind velocity (km/h) [mph]		200 [124]
Height (mm) [inches]		approx. 1060 [41.7]
Yagi length (mm) [inches]		approx. 650 [25.6]
Weight (kg) [lb]		6.5 [14.3]
Packing size (mm) [inches]		1124 x 816 x 92 [44.3 x 32.1 x 3.6]

2-Element Yagi Antenna 146 ... 174 MHz Vertical / Horizontal Polarization



Mounting Options :

- | | |
|----|-----------------------------|
| 1. | For vertical polarization |
| 2. | For horizontal polarization |



3-Element Yagi Antenna 146 ... 174 MHz

Vertical / Horizontal Polarization

The Schomandl K531821 is a robust yagi antenna is intended for use in professional fixed-station applications with highest performance and stability requirements in the 146-174 MHz band.

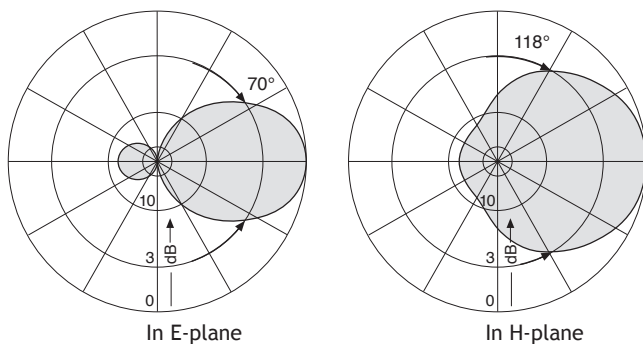
- 3 Element Yagi with 118° beam width
- Rugged hot-dip galvanized steel construction
- Entire antenna at DC ground potential

Type No.	K 53 18 21
Frequency range	146 - 174 MHz
Polarization	Usable for horizontal or vertical polarization
Gain (ref. $\lambda/2$ dipole)	4 dB
Impedance	50 Ω
VSWR	< 1.3
Max. power	380 W (at 50 °C ambient temperature)
Order No.	80000005

Material: Hot-dip galvanized steel.
All screws and nuts: Stainless steel.

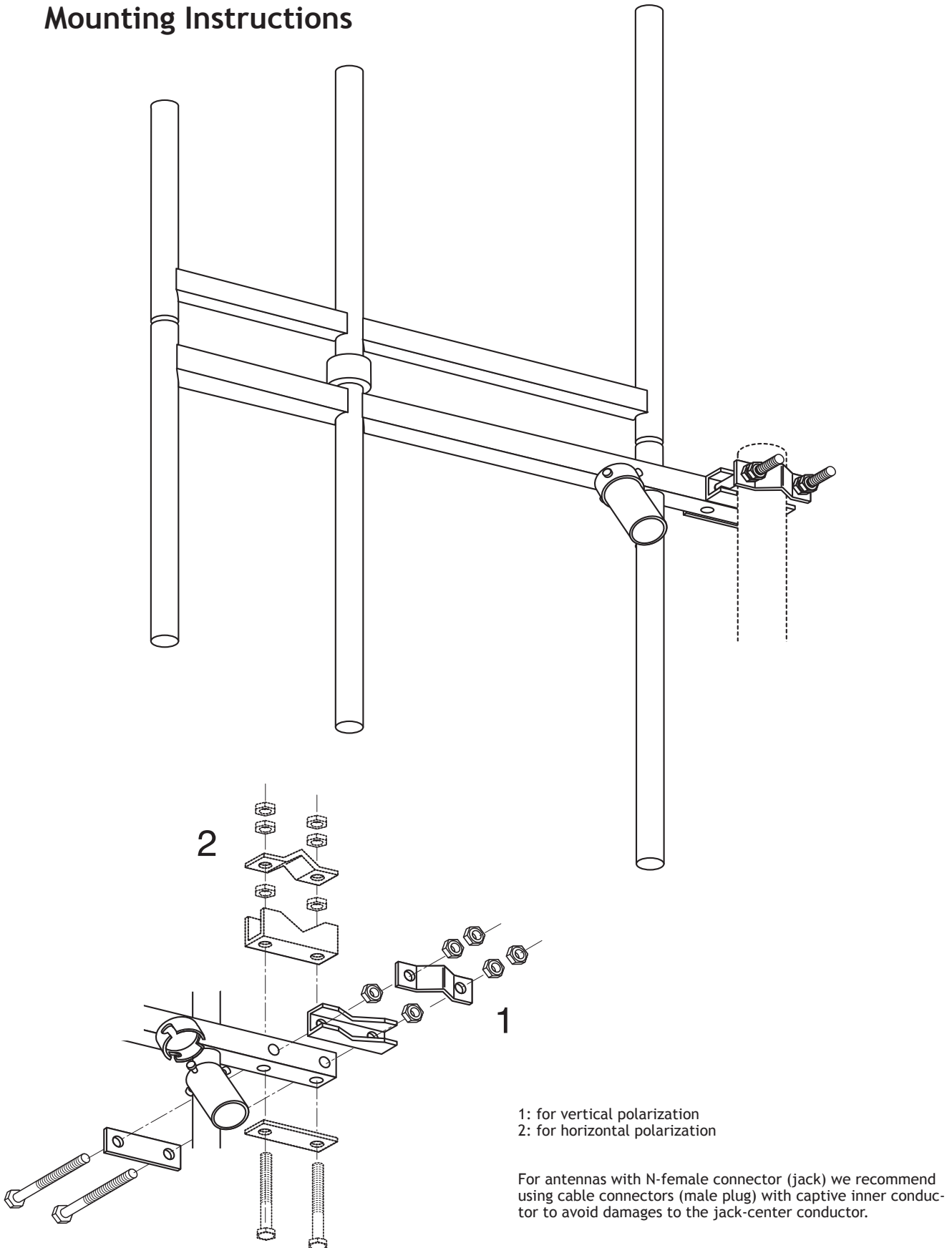
Mounting: On masts from 60-125 mm [2.4-4.9 inches] diameter, clamps supplied.

Grounding: All metal parts of the antenna including the mounting kit are DC grounded.



Mechanical specifications	
Input	N female
Wind load (N) (at 150 km/h) [lbf]	170 [38]
Max. wind velocity (km/h) [mph]	200 [125]
Height (mm) [inches]	approx. 1100 [43.3]
Yagi length (mm) [inches]	approx. 750 [29.5]
Weight (kg) [lb]	7.5 [16.5]
Packing size (mm) [inches]	1112 x 92 x 904 [43.8 x 3.6 x 35.6]

Mounting Instructions



11-Element Yagi Antenna 146 ... 174 MHz

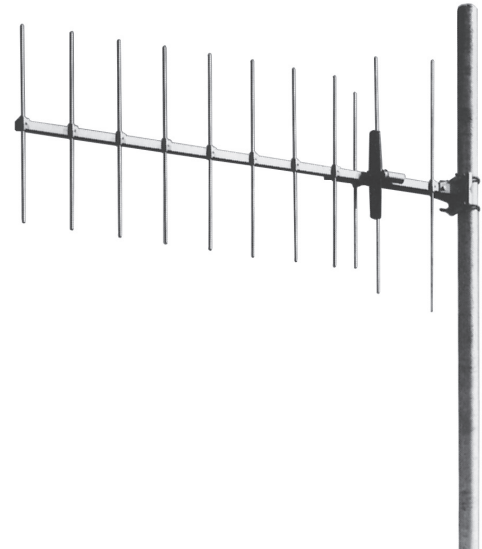
Vertical / Horizontal Polarization

The Schomandl K520721 yagi antenna is intended for use in professional fixed-station applications in the 146-174 MHz band.

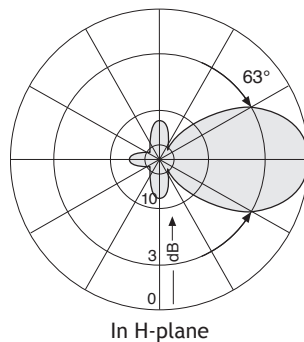
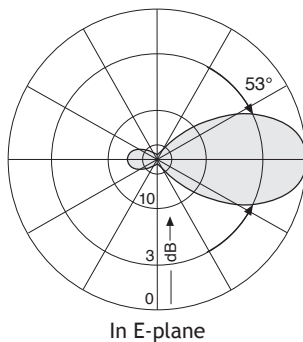
- High gain at a narrow beam width for directional links
- Weather-resistant aluminum construction.
- Entire antenna at DC ground potential.

Type No.	K 52 07 21
Frequency range	146 - 174 MHz
Polarization	Usable for horizontal or vertical polarization
Gain (ref. $\lambda/2$ dipole)	8.5 dB
Impedance	50 Ω
VSWR	< 1.5
Max. power	250 W (at 50 °C ambient temperature)
Order No.	80000006

- Material:** Antenna: Weather-resistant aluminum.
All screws and nuts: Stainless steel.
- Mounting:** On masts from 60- 105 mm [2.4-4.1 inches] diameter, by means of supplied mounting kit.
- Grounding:** All metal parts of the antenna including the mounting kit are DC grounded.
The inner conductor is coupled capacitively.
- Shipping:** The antenna will be shipped dismounted.



© Schomandl GmbH & Co. KG - Subject to modifications / Issue 10/2015



Mechanical specifications			
Input	7-16 female		
Connector position	Bottom		
Wind load (N) [lbf]	Horizontal:	Vertical:	
(at 150 km/h)	lateral:	210 [47]	210 [47]
	frontal:	140 [31]	140 [31]
Max. wind velocity (km/h) [mph]	210 [130]	220 [137]	
Height (mm) [inches]	approx. 1022 [40.2]		
Yagi length (mm) [inches]	approx. 1910 [75.2]		
Weight (kg) [lb]	10.0 [22.0]		
Packing size (mm) [inches]	1954 x 186 x 162 [77.0 x 7.3 x 6.4]		

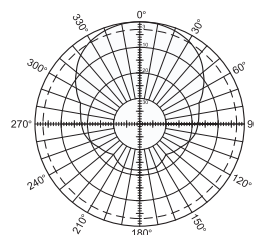
Panel Antenna Heavy Duty 146 ... 174 MHz Vertical / Horizontal Polarization

The Schomandl K523221 directional broadband panel antenna is intended for use in professional fixed-station applications in the 146-174 MHz band.

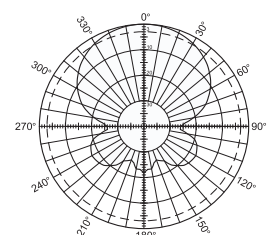
- Heavy-duty construction.
- Excellent bandwidth, VSWR of 1.15:1 across the band, with no field adjustment.

- Hot-dip galvanized steel panel assembly.
- Radiating elements protected with fiberglass radomes.
- Horizontal or vertical polarization.
- Multiple panels may be configured to meet a variety of radiation pattern requirements.
- Stainless steel hardware throughout.

Type No.	K 52 32 21
Frequency range	146-174 MHz (broadband)
Gain	10 dBi
Impedance	50 ohms
VSWR	<1.15:1
Polarization	Horizontal or vertical
Front-to-back ratio	>20 dB
Maximum input power	1100 watts (at 50°)
H-plane beamwidth	65° (half-power)
E-plane beamwidth	58° (half-power)
Connector	N female
Weight	25 kg (55.1 lb)
Dimensions (approx.)	1320 x 1320 x 510 mm (52 x 52 x 26.5 inches)
Wind load	at 150 km/h (93 mph) 600 N (135 lbf)
Wind survival rating*	220 km/h (130 mph)
Shipping dimensions	1400 x 1400 x 750 mm (55.1 x 55.1 x 29.5 inches)
Shipping weight	38.6 kg (85 lb)
Mounting	A mounting kit is available for masts of 60 to 115 mm (2.375 to 4.5 inches) OD.
Order No.	80000007



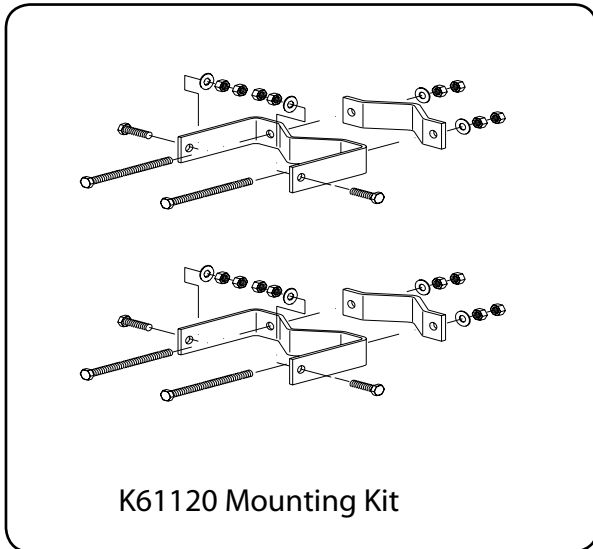
Horizontal pattern



Vertical pattern

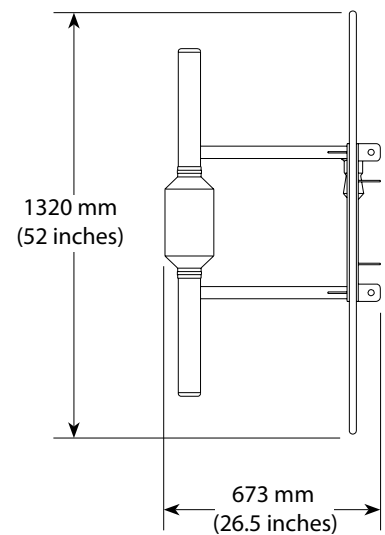
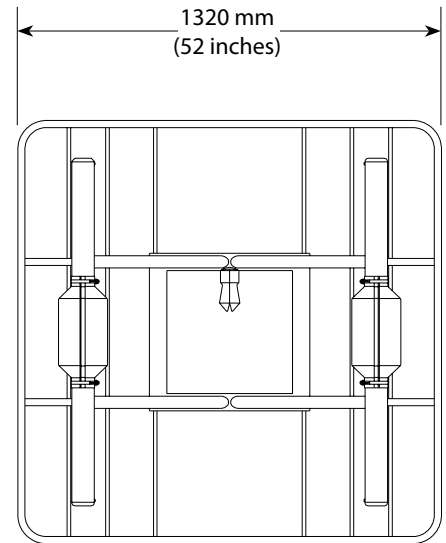
* Mechanical design is based on environmental conditions as stipulated in EIA-222-F (June 1996) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity.

Panel Antenna Heavy Duty 146 ... 174 MHz Vertical / Horizontal Polarization



Mounting Options :

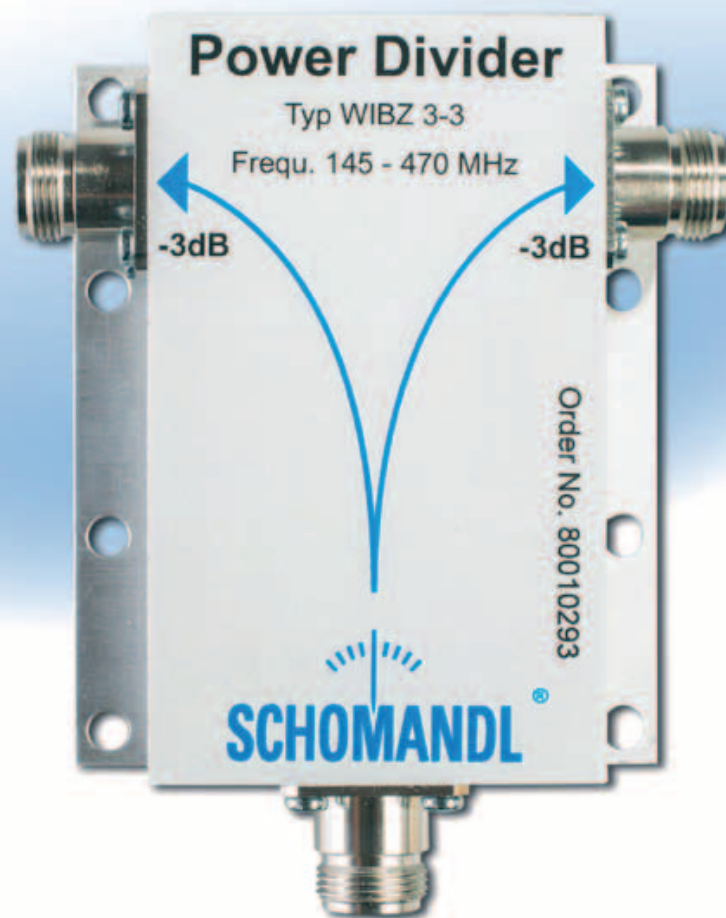
Model	Description
K61120	Mounting kit for 60 to 115 mm (2.375 to 4.5 inch) OD mast.



(Shown vertically polarized)

RF Power Divider 145 - 470 MHz WIBZ 3-3dB

- Cost effective components for many applications like coupler networks or indoor coverage
- Mounting flange already included, no extra parts needed
- Compact and rugged design with a flat frequency response over a wide range



Specifications:

Insertion loss:	0,2 dB / 0,2 dB
Frequency range:	145 - 470 MHz
Max RF Power:	30 W
VSWR	< 1,5
Ports:	50 Ω N-Connectors
Dimensions:	100 x 97 x 40 mm

Order number: 80010293

RF Power Divider Wilkinson 146 - 175 MHz WILK 3-3dB

- Cost effective components for many applications like coupler networks or indoor coverage
- Mounting flange already included, no extra parts needed
- Compact and rugged design with a flat frequency response over a wide range



Specifications:

Insertion loss:	0,2 dB
Frequency range:	146 - 175 MHz
Max RF Power:	30 W
VSWR	< 1,18
Ports:	50 Ω N-Connectors
Dimensions:	100 x 97 x 40 mm

Order number: 80012613

RF Power Divider 10 - 2500 MHz DIVD 6dB

- Cost effective components for many applications like coupler networks or indoor coverage
- Mounting flange already included, no extra parts needed
- Compact and rugged design with a flat frequency response over a wide range



Specifications:

Insertion loss:	0,2 dB
Frequency range:	10- 2500 MHz
Max RF Power:	30 W
VSWR	< 1,10
Ports:	50 Ω N-Connectors
Dimensions:	100 x 97 x 40 mm

Order number: 80010273

RF Power Divider 145 - 470 MHz WIBZ 1-10dB

- Cost effective components for many applications like coupler networks or indoor coverage
- Mounting flange already included, no extra parts needed
- Compact and rugged design with a flat frequency response over a wide range



Specifications:

Insertion loss:	0,1 dB / 0,2 dB
Frequency range:	145 - 470 MHz
Max RF Power:	30 W
VSWR	< 1,4
Ports:	50 Ω N-Connectors
Dimensions:	100 x 97 x 40 mm

Order number: 80010299

Active RF Divider 2 Port 50 - 500 MHz AMP3-2 6dB

- Cost effective components for many applications like coupler networks or indoor coverage
- Mounting flange already included, no extra parts needed
- Compact and rugged design with a flat frequency response over a wide range
- Active wideband amplifier included to compensate coupling loss



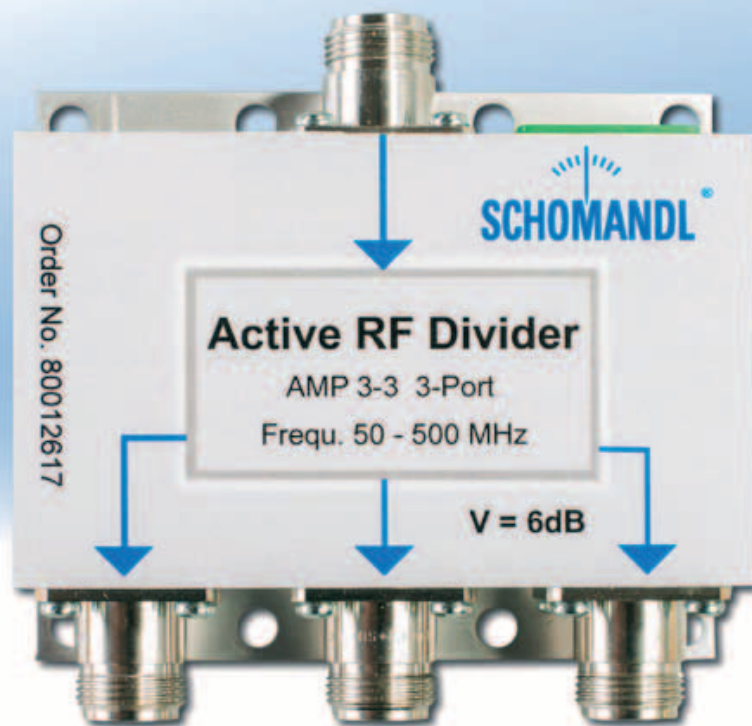
Specifications:

Frequency range:	50- 500 MHz
Gain:	max. 6 dB adjustable internal
VSWR	< 1,15
Ports:	50 Ω N-Connectors 1 input, 2 output
Supply voltage:	+8 ... 15 VDC
Current consumption:	150 mA
Dimensions:	100 x 97 x 40 mm

Order number: 80011180

Active RF Divider 3 Port 50 - 500 MHz AMP3-3 6dB

- Cost effective components for many applications like coupler networks or indoor coverage
- Mounting flange already included, no extra parts needed
- Compact and rugged design with a flat frequency response over a wide range
- Active wideband amplifier included to compensate coupling loss



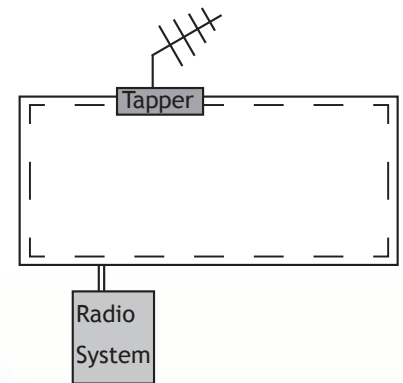
Specifications:

Frequency range:	50- 500 MHz
Gain:	max. 6 dB adjustable internal
VSWR	< 1,15
Ports:	50 Ω N-Connectors 1 input, 3 output
Supply voltage:	+8 ... 15 VDC
Current consumption:	150 mA
Dimensions:	100 x 97 x 40 mm

Order number: 80012617

Wideband Low Loss Power Tapper (WLPT 10) 10 dB

- Ruggedized design for use in antenna systems
- 10 dB decoupling over a wide range
- Simple mounting with attached tools



A Tapper is an unidirectional coupler over a broad bandwidth. It works independently of the signal flow with none directional functionality.

The SCHOMANDL Tapper has a frequency range from 150MHz to 2700MHz. This includes the PMR, WIFI and Cellular bands.

The use is mainly for decoupling RF-signals from a main coax cable installation which is used in In-House and tunnel radio systems.

The ruggedized design allows an easy installation in nearly all situations either with included mounting plate or mounting bracket.

Technical Data

Frequency range:	150 ... 2700 MHz
Decoupling:	10 dB
Insertion loss:	< 0,8 dB
SWR at Input:	≤ 1,4
Max. Power:	300 W
Impedance:	50 Ω
Temperature range:	-20 °C ... + 60 °C
Connections:	N-female
Dimensions (WxHxD):	138 mm x 45 mm x 55 mm
Weight:	0,25 kg

Art.-no. : **80001074**

Programmable Preselection Filter (PPSF) 380-470 MHz 12,5 / 25 kHz BW

Frequency tunable crystal bandpass filter for preselection of a receiving channel with integrate mikrocontroller for programming and monitoring of the filter system. Additional with optional bypass switching.

Product Features:

- Active crystal filter system with 12,5 kHz or 25 kHz BW
- Front-end LNA for low noise figure
- Software programmable frequency in 3,125 kHz steps
- User adjustable gain
- Web-interface for remote controlling and monitoring
- All connectors at the backpanel
- 19" case, 12 HP

Specification:

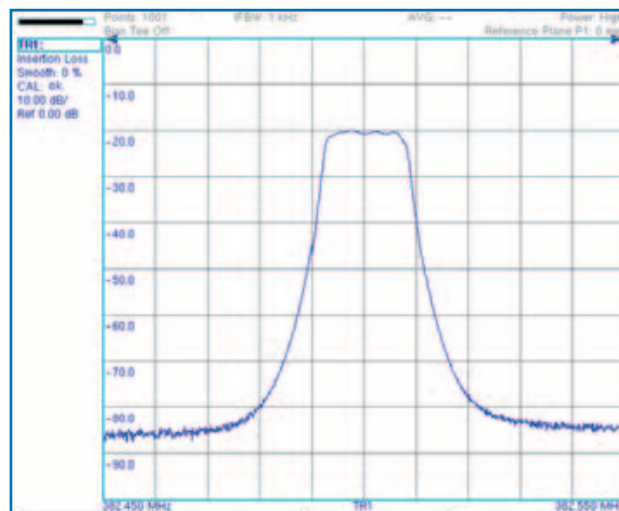
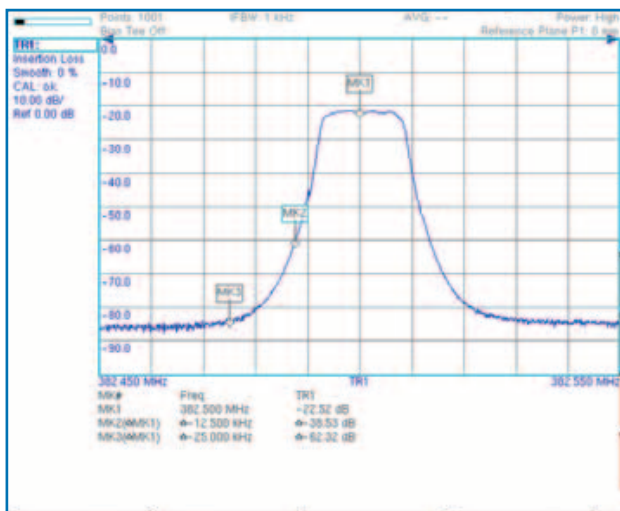
Frequency range:	380-400 / 410-430 / 450-470 MHz	
Tunable steps:	3,125 kHz	
Filter bandwidth:	12,5 kHz	25 kHz
Adjacent channel rejection:	>36dB @ ±12,5 kHz, >64dB @ ±25 kHz	>36dB @ ±25 kHz, >64dB @ ±50 kHz
Max. gain over all:	28 dB	
Adjustable gain range:	25 dB	
Max. output power Rx:	+3 dBm	
Max. input power Rx:	0 dBm	
Overload RX-Bypass:	yes, self recovery, optional	
Max. VSWR:	1,3 : 1	
Noise figure:	typ. < 5 dB	
RF connectors:	QMA – female	
Programming:	Ethernet, remote access	
Power DC / current:	13,5V DC / 700mA	
Temperature range:	0°C bis 55°C	
Dimension	130 x 61 x 200 mm (110 x 56 x 200 without fitting panel)	

Status LED:

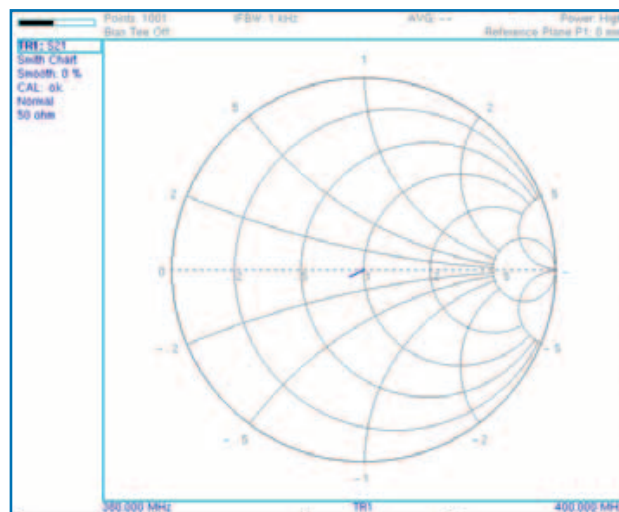
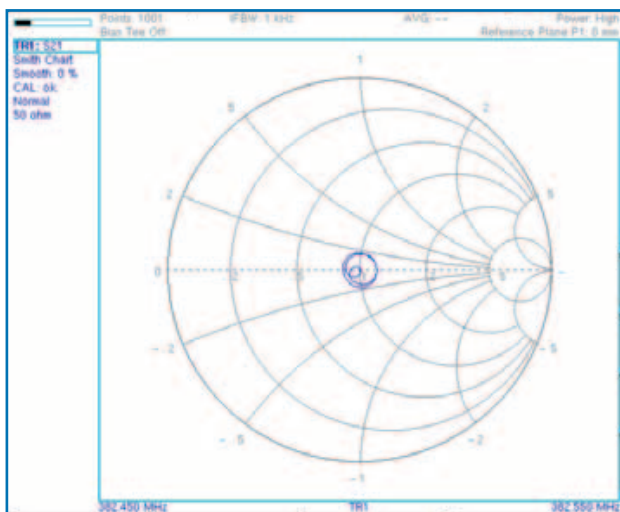
- Bypass	Bypass aktive	- VCO	VCO not locked
- Rx	receiving aktive	- PPSF alarm	failure at the PPSF
- MCU aktive	microcontroller works	- Status	Status message
- Vdc	Power supply voltage OK	- Remote	remote access active
- overload Rx	overload Rx aktive	- Connected	connect to the Ethernet
- Rmt Alarm	Remote Alarm	- DATA	Transmit and receive data



Programmable Preselection Filter (PPSF) 380-470 MHz 12,5 / 25 kHz BW



Passband 12,5 kHz Filter



Adjustment of the filter to 50 Ohm

- Two TMO radios connected to one antenna
- Precision model with low Insertion loss and highest Isolation according to ETSI EN 300 392
- Rugged design with milled aluminum chassis and precision N-connectors



This Schomandl TETRA coupler allows connecting two TETRA TMO radios together to one antenna.

The design based on hybrid couplers assures highest safety of operation at a very low insertion loss for all connected radios.

With these specifications, the multicouplers are the right fit for installation in vehicles as well as in land stations and are enabling a cost effective operation with lowest space requirements.

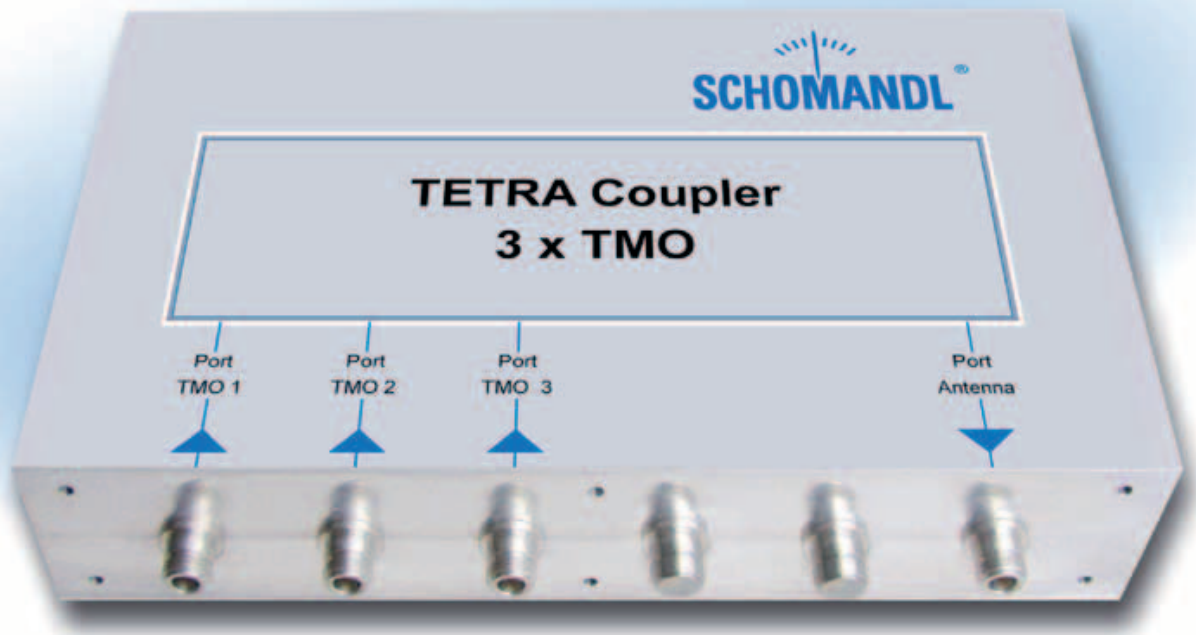
The >60dB RX/TX-Isolation (according to ETSI EN 300 392) furthermore exceeds most usual parallel antenna configurations.

Specifications

Frequency range	380 - 385 MHz / 390 - 395 MHz
On demand:	415 - 420 MHz / 425 - 430 MHz 410 - 415 MHz / 420 - 425 MHz
Max. RF power	30 W
Insertion Loss	TMO 5 - 7 dB
Isolation TMO	> 60 dB
Dimensions	250 x 210 x 75 mm
Weight	5.1 kg

Order number: 80011203

- Three TMO radios connected to one antenna
- Precision model with low Insertion loss and highest Isolation according to ETSI EN 300 392
- Rugged design with milled aluminum chassis and precision N-connectors



This Schomandl TETRA coupler allows connecting three TETRA TMO radios together to one antenna.

The design based on hybrid couplers assures highest safety of operation at a very low insertion loss for all connected radios.

With these specifications, the multicouplers are the right fit for installation in vehicles as well as in land stations and are enabling a cost effective operation with lowest space requirements.

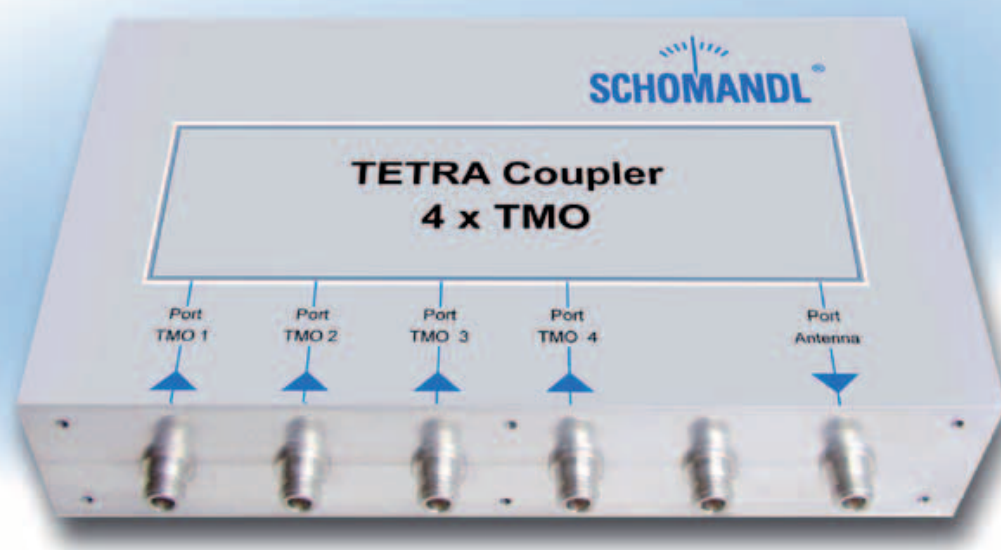
The >60dB RX/TX-Isolation (according to ETSI EN 300 392) furthermore exceeds most usual parallel antenna configurations.

Specifications

Frequency range	380 - 385 MHz / 390 - 395 MHz
On demand:	415 - 420 MHz / 425 - 430 MHz 410 - 415 MHz / 420 - 425 MHz
Max. RF power	30 W
Insertion Loss	TMO 8 - 10 dB
Isolation TMO	> 60 dB
Dimensions	350 x 210 x 75 mm
Weight	6.3 kg

Order number: 80011262

- Four TMO radios connected to one antenna
- Precision model with low Insertion loss and highest Isolation according to ETSI EN 300 392
- Rugged design with milled aluminum chassis and precision N-connectors



This Schomandl TETRA coupler allows connecting four TETRA TMO radios together to one antenna.

The design based on hybrid couplers assures highest safety of operation at a very low insertion loss for all connected radios.

With these specifications, the multicouplers are the right fit for installation in vehicles as well as in land stations and are enabling a cost effective operation with lowest space requirements.

The >60dB RX/TX-Isolation (according to ETSI EN 300 392) furthermore exceeds most usual parallel antenna configurations.

Specifications

Frequency range	380 - 385 MHz / 390 - 395 MHz
On demand:	415 - 420 MHz / 425 - 430 MHz 410 - 415 MHz / 420 - 425 MHz
Max. RF power	30 W
Insertion Loss	TMO 8 - 10 dB
Isolation TMO	> 60 dB
Dimensions	350 x 210 x 75 mm
Weight	6.2 kg

Order number: 8001123

- One TMO radio and one DMO radio connected to one antenna
- Precision model with low Insertion loss and highest Isolation according to ETSI EN 300 392
- Rugged design with milled aluminum chassis and precision N-connectors



This Schomandl TETRA coupler allows connecting one TETRA TMO radio and one TETRA DMO radio together to one antenna.

The design based on hybrid couplers assures highest safety of operation at a very low insertion loss for all connected radios.

With these specifications, the multicouplers are the right fit for installation in vehicles as well as in land stations and are enabling a cost effective operation with lowest space requirements.

The >60dB RX/TX-Isolation (according to ETSI EN 300 392) furthermore exceeds most usual parallel antenna configurations.

Specifications

Frequency range	TMO 380 - 395 MHz DMO 406 - 410 MHz
Max. RF power	30 W
Insertion Loss	TMO 1.8 dB DMO 2.1 dB
Isolation TMO & DMO	> 60 dB
Dimensions	140 x 140 x 58 mm
Weight	1.2 kg

Order number: 80012265

- Two TMO radios and one DMO radio connected to one antenna
- Precision model with low Insertion loss and highest Isolation according to ETSI EN 300 392
- Rugged design with milled aluminum chassis and precision N-connectors



This Schomandl TETRA coupler allows connecting two TETRA TMO radios and one TETRA DMO radio together to one antenna.

The design based on hybrid couplers assures highest safety of operation at a very low insertion loss for all connected radios.

With these specifications, the multicouplers are the right fit for installation in vehicles as well as in land stations and are enabling a cost effective operation with lowest space requirements.

The >60dB RX/TX-Isolation (according to ETSI EN 300 392) furthermore exceeds most usual parallel antenna configurations.

Specifications

Frequency range	TMO 380 - 395 MHz DMO 406 - 410 MHz
Max. RF power	30 W
Insertion Loss	TMO 9 - 11 dB DMO 2.1 dB
Isolation TMO & DMO	> 60 dB
Dimensions	250 x 210 x 58 mm
Weight	5.2 kg

Order number: 80011204

- Three TMO radios and one DMO radio connected to one antenna
- Precision model with low Insertion loss and highest Isolation according to ETSI EN 300 392
- Rugged design with milled aluminum chassis and precision N-connectors



This Schomandl TETRA coupler allows connecting three TETRA TMO radios and one TETRA DMO radio together to one antenna.

The design based on hybrid couplers assures highest safety of operation at a very low insertion loss for all connected radios.

With these specifications, the multicouplers are the right fit for installation in vehicles as well as in land stations and are enabling a cost effective operation with lowest space requirements.

The >60dB RX/TX-Isolation (according to ETSI EN 300 392) furthermore exceeds most usual parallel antenna configurations.

Specifications

Frequency range	TMO 380 - 395 MHz DMO 406 - 410 MHz
Max. RF power	30 W
Insertion Loss	TMO 9 - 11 dB DMO 2.1 dB
Isolation TMO & DMO	> 60 dB
Dimensions	350 x 210 x 75 mm
Weight	6.3 kg

Order number: 80012263

- Two to four radios connected to one antenna
- DMO port optional
- Precision model with low Insertion loss and highest Isolation according to ETSI EN 300 392
- Rugged design with milled aluminum chassis and precision N-connectors



The Schomandl TETRA multicouplers allow connecting two to four TETRA TMO-Radios to one antenna, depending on model.

One additional port can be used for DMO.

The design based on hybrid couplers assures highest safety of operation at a very low insertion loss for all connected radios.

With these specifications, the multicouplers are the right fit for installation in vehicles as well as in land stations and are enabling a cost effective operation with lowest space requirements.

The >60dB RX/TX-Isolation (according to ETSI EN 300 392) furthermore exceeds most usual parallel antenna configurations.

Specifications

Frequency range: 380 - 385 MHz / 390 - 395 MHz

Optional (on demand): 415 - 420 MHz / 425 - 430 MHz
410 - 415 MHz / 420 - 425 MHz

DMO: 406 - 410 MHz

Max. RF power: 30 W

Insertion Loss
(RX/TX frequency range): Typ. 10 - 12 dB

Isolation RX/TX: > 60 dB

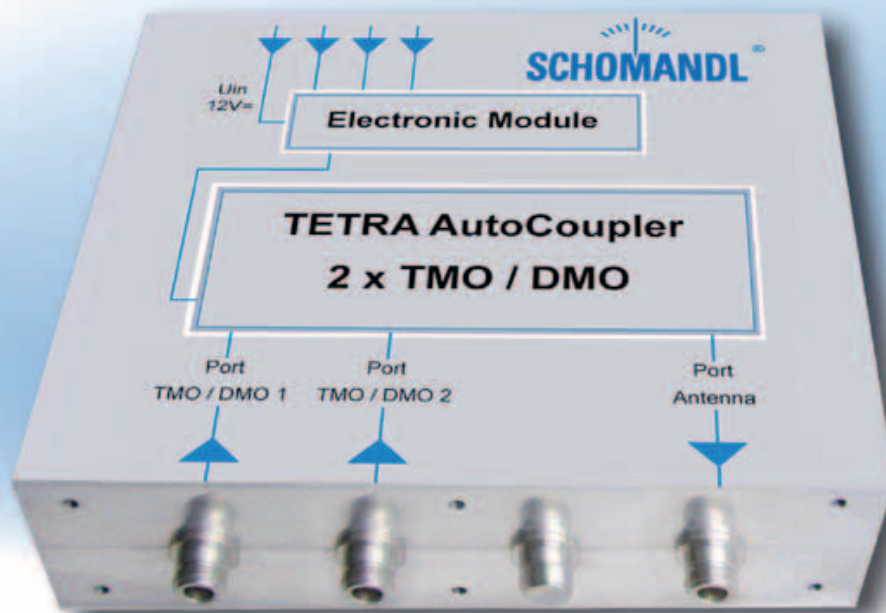
Isolation TX/TX: > 60 dB (@ 50 Ohms antenna impedance)

Dimensions: 350 x 210 x 75 mm

Weight: 6.3 kg

Order number: 80011124

- Two radios connected to one antenna
- All radio ports switchable to TMO or DMO
- Automatic switchover between TMO and DMO within the multicoupler
- Precision model with low Insertion loss and highest Isolation according to ETSI EN 300 392
- Rugged design with milled aluminum chassis and precision N-connectors



The Schomandl TETRA multicouplers allow connecting two to four TETRA TMO-Radios to one antenna, depending on model.

The two ports can be switched to either TMO or DMO. Switching is initiated by the radios connected and an electronic controller module in the multicoupler. One of the four ports can be used for DMO at a given time, only.

The design based on hybrid couplers assures highest safety of operation at a very low insertion loss for all connected radios.

With these specifications, the multicouplers are the right fit for installation in vehicles as well as in land stations and are enabling a cost effective operation with lowest space requirements.

The >60dB RX/TX-Isolation (according to ETSI EN 300 392) furthermore exceeds most usual parallel antenna configurations.

Specifications

Frequency range:	380 - 385 MHz / 390 - 395 MHz
Optional (on demand):	415 - 420 MHz / 425 - 430 MHz 410 - 415 MHz / 420 - 425 MHz
DMO:	406 - 410 MHz
Max. RF power:	30 W
Insertion Loss (RX/TX frequency range):	Typ. 9 - 11 dB
Isolation RX/TX:	> 60 dB
Isolation TX/TX:	> 60 dB (@ 50 Ohms antenna impedance)
Dimensions:	350 x 210 x 75 mm
Weight:	5.4 kg

Order number: 80011205

- Three radios connected to one antenna
- All radio ports switchable to TMO or DMO
- Automatic switchover between TMO and DMO within the multicoupler
- Precision model with low Insertion loss and highest Isolation according to ETSI EN 300 392
- Rugged design with milled aluminum chassis and precision N-connectors



The Schomandl TETRA multicouplers allow connecting two to four TETRA TMO-Radios to one antenna, depending on model.

The three ports can be switched to either TMO or DMO. Switching is initiated by the radios connected and an electronic controller module in the multicoupler. One of the four ports can be used for DMO at a given time, only.

The design based on hybrid couplers assures highest safety of operation at a very low insertion loss for all connected radios.

With these specifications, the multicouplers are the right fit for installation in vehicles as well as in land stations and are enabling a cost effective operation with lowest space requirements.

The >60dB RX/TX-Isolation (according to ETSI EN 300 392) furthermore exceeds most usual parallel antenna configurations.

Specifications

Frequency range: 380 - 385 MHz / 390 - 395 MHz

Optional (on demand): 415 - 420 MHz / 425 - 430 MHz
410 - 415 MHz / 420 - 425 MHz

DMO: 406 - 410 MHz

Max. RF power: 30 W

Insertion Loss

(RX/TX frequency range): Typ. 10 - 12 dB

Isolation RX/TX: > 60 dB

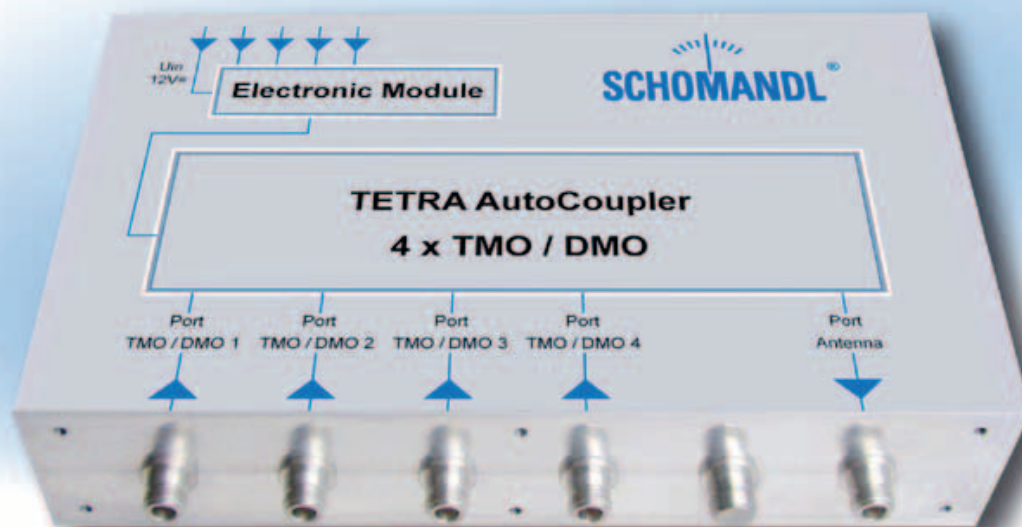
Isolation TX/TX: > 60 dB (@ 50 Ohms antenna impedance)

Dimensions: 350 x 210 x 75 mm

Weight: 6.6 kg

Order number: 80012264

- Four radios connected to one antenna
- All radio ports switchable to TMO or DMO
- Automatic switchover between TMO and DMO within the multicoupler
- Precision model with low Insertion loss and highest Isolation according to ETSI EN 300 392
- Rugged design with milled aluminum chassis and precision N-connectors



The Schomandl TETRA multicouplers allow connecting two to four TETRA TMO-Radios to one antenna, depending on model.

The four ports can be switched to either TMO or DMO. Switching is initiated by the radios connected and an electronic controller module in the multicoupler. One of the four ports can be used for DMO at a given time, only.

The design based on hybrid couplers assures highest safety of operation at a very low insertion loss for all connected radios.

With these specifications, the multicouplers are the right fit for installation in vehicles as well as in land stations and are enabling a cost effective operation with lowest space requirements.

The >60dB RX/TX-Isolation (according to ETSI EN 300 392) furthermore exceeds most usual parallel antenna configurations.

Specifications

Frequency range: 380 - 385 MHz / 390 - 395 MHz

Optional (on demand): 415 - 420 MHz / 425 - 430 MHz
410 - 415 MHz / 420 - 425 MHz

DMO: 406 - 410 MHz

Max. RF power: 30 W

Insertion Loss
(RX/TX frequency range): Typ. 10 - 12 dB

Isolation RX/TX: > 60 dB

Isolation TX/TX: > 60 dB (@ 50 Ohms antenna impedance)

Dimensions: 350 x 210 x 75 mm

Weight: 6.6 kg

Order number: 80011128

Through-Line Power Meter for installation tests



The new FIT-USB from Schomandl has a large and easy-to-read monochrome graphic display with 240x128 pixel and a touch function.

The new design and compact housing is ideal for a handheld device.

Forward and reverse power (in average or burst mode) or VSWR, by automatic identification of CW, GSM, TETRA and DMR can be measured simultaneously.

The DC voltmeter with numerical and bargraph display is already built in. So there is no need for an extra instrument to locate further malfunctions in car installation kits for mobile phones and in the vehicle's electrical System.

The handheld FIT-Viewer provides easy data exchange and firmware update via USB-Flash Drive. It is possible to communicate with the RF-Head via USB from a PC or Notebook - without the handheld FITViewer as well.

The FIT-Viewer is battery operated with long operation and a short charging time and designed to supply the RF-Head, too.

Features RF - Head

- Directional Coupler available in the range from 25 MHz to 1000 MHz GSM,
- Power measurement in the range from 0,1mW to 300W
- Simultaneous reading of power and antenna matching
- Measures average power or burst power
- Automatic identification of CW, GSM, TETRA and DMR
- VSWR measurement
- Min. / Max. - hold
- User offset in 0,1 dB steps
- USB connectivity for PC use or FIT - Viewer operation

Features FIT - Viewer

- Handheld for battery operation of RF-Head
- DC-Voltmeter with history memory
- Easy Data exchange and firmware update via USB-Flash Drive



Technical Data

	Parameter	RF - Head 1G030	RF - Head 1G300
General	Powermeasurement	1,0 mW to 30 W 0,1 mW to 3 W ³⁾	10,0 mW to 300 W
	Uncertainty	< 1,0 dB ^{1) 2)}	< 1,0 dB ^{1) 2)}
	Frequency Range	25 MHz to 1000 MHz	25 MHz to 1000 MHz
	SWR (50 Ω)	1,10 bis ∞	1,10 bis ∞
	Insertion Loss	max. 0,1 dB	max. 0,1 dB
	Directivity	min. 30dB	min. 30dB
Resolution	dBm	0,1 dB	0,1 dB
	Watt	0,01 W (P < 30,0 W) 0,001 W (P < 10,0 W)	0,1 W (P ≥ 100,0 W) 0,01 W (P < 100,0 W) 0,001 W (P < 10,0 W)
	VSWR	0,01 (SWR < 2,0) 0,10 (SWR < 5,0) 0,50 (SWR < 10,0)	0,01 (SWR < 2,0) 0,10 (SWR < 5,0) 0,50 (SWR < 10,0)

1) Temperature range 20 °C bis 25 °C 2) Power 1,0 W (+30 dBm) 3) Only in 2->1 mode

	Parameter	FIT - Viewer Handheld
General	Voltage Range	10V - 20V - 50V
	Uncertainty	< 1,0 % of voltage range
	Operation time	Up to 8 hours
	Charging time	< 4 hours

Standalone Antenna
Reflection Tester



Features

- LCD Display works in direct sunlight and with backlight in dark areas.
- Built-in synthesized RF sweeping source.
- Measured results can be stored for further analysing and documentation on internal and external storage media
- Time stamp and operator ID is possible
- All in one analysing for antenna tuning and verify
- FAT 2710 measures antenna, frequency, SWR and bandwidth by sweeping band of interest
- A cost-effective SWR Analyzer covering all major Cellular and mobile radio communication bands
- FAT 2710 gives you quick and reliable trouble-shooting
- 30 - 2700 MHz

A Breakthrough in SWR analysing

Specifications

Model	FAT 2710
Application	Measurement of SWR in 50 Ω transmission lines
Frequency range	30->2700 MHz entered as centre and span
Center Frequency	30 to 2700 MHz.
Span	0 to 2670 MHz.
Frequency stability	±50ppm
Measurement range	1.0<SWR<9.9, 0<dB<-30dB
Impedance	Nom. 50 Ω
Generator output	Approx. -8dBm
Max. input on test terminal	100 mW
Tolerance on SWR reading	30-650MHz ± 10%; 650-1450MHz ± 10%; and 1450-2700MHz ±15%
Operating temperature range	0° C-> + 50° C
Storage temperature range	-30° C -> + 50° C
Connectors	“N”-female RF test connector. USB A type for memory key. USB B type for serial PC communication. Mini DIN for RS232 communication up to 38400 Baud
Power supply	4 NiMH type AA rechargeable batteries (Batteries, NiMH rechargeable and 230VAC/7.5VDC charger supplied)
Auto Power off (no failure!)	For battery economy, FAT 2710 automatically turns off 3 min. after last entry
Normal operating use	Fully charged: More than 10 hours.
Colour	Silver/blue
Width	82 mm
Depth	31 mm
Height	165 mm
Weight	500 gram (incl. Batteries)
EMC	Complies with directive 89/336EEC as amended by 92/31EEC and 93/68/EEC
Standards	Emissions: EN 61000-6-4: 2001 Immunity: EN 61000-6-2: 2005
Accessory	Soft carrying bag with RF-adaptor set, car charging cable

Order Number:
Order Number for Accessory:

BN: 80008282
BN: 50008286

SI 1000+ Radio Frequency Safety Detector

SI 1000+ measures the strength of electromagnetic fields from mobile phones, microwave ovens, installations, RF welders etc.

SI 1000+ gives acoustic and visual warning, when the limit according to WHO ICNIRP is exceeded.



Features

- Professional exposure limit
- Public exposure limit
- Audible Alarm
- Silent mode
- Liquid crystal display
- Compliant to WHO/ICNIRP
- Battery operated
- LED Alarm

Specifications

- Frequency range: 10MHz - 10GHz
- Professional limit: 10W/m²
- Public limit: 2W/m²
- Temperature range: -10C to +40C
- Current consumption: 110uAh
- Battery type: 2xAAA
- Operation time: > 250 days
- Weight: < 90g incl. batteries

Applications

- Cost effective
- Belt clip
- Light weight
- Rugged design
- Radiation display
- Personal safety

Ready for use

When **SI 1000+** is made ready for use; the batteries must be installed and the functions tested.

- Unscrew the battery cover on the back.
- Install two pieces of AAA Alkaline batteries



Operating

Operating SI 1000+

SI 1000+ has 3 alarm functions and two alarm levels. All functions are controlled by pressing the SELECT pushbutton. When SELECT is pushed there is audio and visual feedback.

Changing of alarm level

SI 1000+ can be set to two alarm levels. The lower level is named PUBLIC and is automatically chosen when SI 1000+ is taken into service.

To change alarm level press and hold down the SELECT pushbutton for more than 5 seconds, where after the response will be 10 long or 10 short beeps. The chosen level is indicated by a lit bar, when no electromagnetic fields are present.

Selecting of alarm function

By pushing the SELECT button, 3 different alarm functions can be chosen:

Normal (one beep)

In this position the SI 1000+ will give both audible and visual warning, when the chosen alarm limit is exceeded.

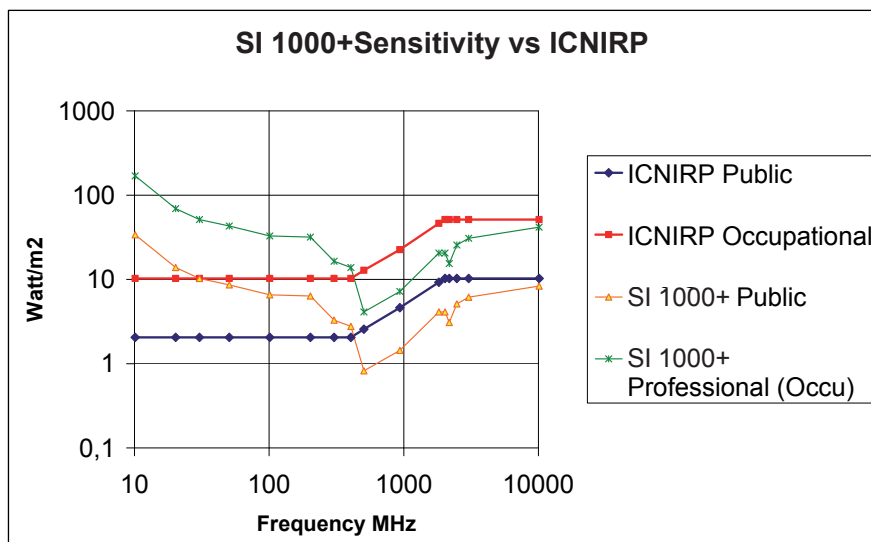
Timer (two beeps)

SI 1000+ will only give visual warning, when the chosen alarm limit is exceeded.

After approximately 5 minutes SI 1000+ will beep and return to normal position.

Silent (three beeps)

SI 1000+ will only give visual warning, when the chosen alarm limit is exceeded.



Is it dangerous?

High frequency radiation is known from microwave ovens. The Power and the Time determines how quick and how hot the material gets.

Likewise will other types of electromagnetic radiation influence material near by. This again is a question of power and time when ever it is a health hazard.

WHO has given health hazard limits, these limits are accepted in most parts of the world as standards. The limits are divided into two levels, one for PUBLIC and one for persons trained to work in high frequency radiation areas called OCCUPATIONAL/PROFESSIONAL.

SI 1000+ is used to detect if you are in a high frequency radiation field that could be a health hazard. SI 1000+ can not give an exact value of the radiation strength or determine how long time you can stay in the radiation field.

When SI 1000+ gives alarm there is a health risk. If it is a place of work you should contact the Security Officer. If you have to work nearby antenna installations e. g. on top of buildings or at antenna towers you should contact the operator.

The following products are obsolete and no longer available from Schomandl. But in many cases, we still can offer you a product, which is comparable or nearly identical to the one you are looking for.

Those match types can be shipped from our regular portfolio. Please check the following table for differences between obsolete type and match type.

Product no longer available	Type No.		Comparable product
V pol Omni Sleeve Dipole	K 55 21 47	=>	Use K 55 21 41 (with N Connector instead of 7/16 Connector)
V pol Groundplane	K 51 26 41 2	=>	Use K 51 26 41 1 (with N Connector instead of UHF Connector)
V pol Groundplane	K 51 26 42 2	=>	Use K 51 26 42 1 (with N Connector instead of UHF Connector)
V pol Dipole	K 55 28 47	=>	Use K 55 28 41 (with N Connector instead of 7/16 Connector)
V pol Dipole	K 55 28 47 9	=>	Use K 55 28 41 (with N Connector instead of 7/16 Connector and a different pipe clamp)
V pol Dipole	K 55 28 41 9	=>	Use K 55 28 41 (with a different pipe clamp)
V pol Dipole	K 55 29 2	=>	Use K 55 29 21 (with N Connector instead of 7/16 Connector)
V pol Dipole	K 55 29 29	=>	Use K 55 29 21 (with N Connector instead of 7/16 Connector and a different pipe clamp)
V pol Dipole	K 55 29 19	=>	Use K 55 29 21 (with a different pipe clamp)
V pol Dipole Colinear	K 55 31 2	=>	Use K 55 31 21 (with N Connector instead of 7/16 Connector)
V pol Dipole Colinear	725918	=>	Use K 55 31 21 (with power rating 50W instead of 500W)
V pol Dipole Colinear	730068A	=>	Use K 55 31 21 (with N Connector instead of 7/16 Connector and with 50W instead of 500W)



ООО «4ТЕСТ»

Телефон: +7 (499) 685-4444

Электронная почта: 4test@4test.ru