

Active components

Overview of accessories

Accessories – Active components	WLAN antennas and connection cables	F.2
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WLAN antennas

IE-ANT-0-BG-360-6-NF

IE-ANT-0-AH-360-5-NF



Technical data

Electrical data	
Frequency range (Mhz)	2400 - 2500 (Mhz)
Antenna gain	6 dBi
Beamwidth (horizontal)	360°
Beamwidth (vertical)	30°
General data	
Radiation	Omnidirectional
Impedance	50 ohm
Polarisation	Vertical
Connector type	1 x N-type female
Mechanical specifications	
Dimensions	250 x 22 mm (height x diameter)
Weight	300 g
Wind load	Frontal: 3N @ 160 km/h, side 3N 160 km/h
Mast diameter min.	25 mm
Mast diameter max.	101 mm
Environmental Limits	
Area of application	indoors as well as outdoors
Operating temperature	- 40 to 80 °C
Storage Temperature	- 40 to 80 °C
IP protection class	IP 67
Enclosure material	
Radome colour	RAL 7035 (light grey)
Radome material	Fibre glass
Material for base plate	-

Electrical data	
Frequency range (Mhz)	5150 - 5875 (Mhz)
Antenna gain	5 dBi
Beamwidth (horizontal)	360°
Beamwidth (vertical)	25°
General data	
Radiation	Omnidirectional
Impedance	50 ohm
Polarisation	Vertical
Connector type	1 x N-type female
Mechanical specifications	
Dimensions	160 x 16 mm (height x diameter)
Weight	300 g
Wind load	Frontal: 7N @ 160 km/h, side 7N @ 160 km/h
Mast diameter min.	38.1 mm
Mast diameter max.	76.2 mm
Environmental Limits	
Area of application	indoors as well as outdoors
Operating temperature	- 45 to 70 °C
Storage Temperature	- 45 to 70 °C
IP protection class	IP 67
Enclosure material	
Radome colour	RAL 9002 (grey white)
Radome material	PP
Material for base plate	-

Electrical data	
Frequency range (Mhz)	5150 - 5875 (Mhz)
Antenna gain	5 dBi
Beamwidth (horizontal)	360°
Beamwidth (vertical)	25°
General data	
Radiation	Omnidirectional
Impedance	50 ohm
Polarisation	Vertical
Connector type	1 x N-type female
Mechanical specifications	
Dimensions	160 x 16 mm (height x diameter)
Weight	300 g
Wind load	Frontal: 7N @ 160 km/h, side 7N @ 160 km/h
Mast diameter min.	38.1 mm
Mast diameter max.	76.2 mm
Environmental Limits	
Area of application	indoors as well as outdoors
Operating temperature	- 45 to 70 °C
Storage Temperature	- 45 to 70 °C
IP protection class	IP 67
Enclosure material	
Radome colour	RAL 9002 (grey white)
Radome material	PP
Material for base plate	-

Ordering data

Version
802.11 b/g wireless antenna; omnidirectional
802.11 a/h wireless antenna; omnidirectional

Type	Operating temperature	Order No.
IE-ANT-0-BG-360-6-NF	- 40 to 80 °C	1367090000

Type	Operating temperature	Order No.
IE-ANT-0-AH-360-5-NF	- 45 to 70 °C	1367120000

Note
Assembly material included in scope of supply

Note
Assembly material included in scope of supply

Note
Assembly material included in scope of supply



WLAN antennas and connection cables

Antenna cable

IE-CC-NM-RPSMAM-2M

IE-CC-NM-RPSMAM-4M



Technical data

Electrical data	
Impedance	50 Ohm +/- 2
Max. operating frequency	6 Ghz
Signal delay	4.08 ns/m
Attenuation @ 2.4 Ghz	approx. 0.55 dB/m
Attenuation @ 5 Ghz	approx. 0.87 dB/m

Mechanical specifications	
Length	2 m
Weight	6.3 kg/100 m
Min. bending radius (continuous)	28 mm
Connector type	Connection 1: N-type male Connection 2: RP-SMA male

Environmental Limits	
Operating temperature	-40 to 85 °C
Installation temperature	-20 to 60 °C
Flammability	IEC 60332-1, UL 1581 § 1080 (VW-1)
Halogen-free	IEC 60754
UV resistance	ISO 4892-2A

Material data	
Jacket	LSFH (modified polyethylene)
Outside diameter	5.7 mm

Ordering data

Version
Antenna cable, 2m long, N-type (male) -> RP-SMA (male), impedance 50 ohm
Antenna cable, 4m long, N-type (male) -> RP-SMA (male), impedance 50 ohm

Note

50 Ohm +/- 2
6 Ghz
4.08 ns/m
approx. 0.55 dB/m
approx. 0.87 dB/m

2 m
6.3 kg/100 m
28 mm
Connection 1: N-type male Connection 2: RP-SMA male

-40 to 85 °C
-20 to 60 °C
IEC 60332-1, UL 1581 § 1080 (VW-1)
IEC 60754
ISO 4892-2A

LSFH (modified polyethylene)
5.7 mm

Type	Order No.
IE-CC-NM-RPSMAM-2M	1367110000

50 Ohm +/- 2
6 Ghz
4.08 ns/m
approx. 0.55 dB/m
approx. 0.87 dB/m

4 m
6.3 kg/100 m
28 mm
Connection 1: N-type male Connection 2: RP-SMA male

-40 to 85 °C
-20 to 60 °C
IEC 60332-1, UL 1581 § 1080 (VW-1)
IEC 60754
ISO 4892-2A

LSFH (modified polyethylene)
5.7 mm

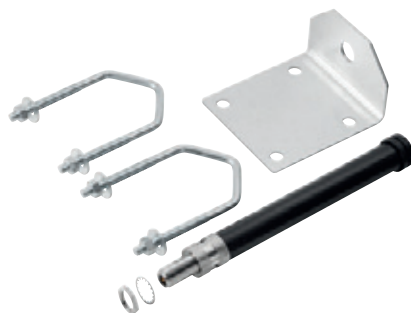
Type	Order No.
IE-CC-NM-RPSMAM-4M	1367100000

Note

Mobile radio antennas and connection cables

Mobile radio antenna

IE-ANT-3G-806-2170-2-NF



IE-ANT-3G-806-2500-4-NF



Technical data

Frequency range (Mhz)
Antenna gain
Radiation
Impedance
Polarisation
Connector type
Mechanical specifications
Dimensions
Weight
Environmental Limits
Area of application
Operating temperature
Storage Temperature
IP protection class
Enclosure material
Radome colour
Radome material

Band 1: 806-960 (MHz)
Band 2: 1710-2170 (MHz)
Band 1: 1 dBi
Band 2: 2dBi
Omnidirectional
50 ohm
Linear vertical
1 x N-type female
200 x 22 mm (height x diameter)
430 g
for indoor and outdoor use
- 40 to 85 °C
- 40 to 85 °C
IP 54
black
Plastic

Band 1: 806-960 (MHz)
Band 2: 1710-2500 (MHz)
Band 1: 3 dBi
Band 2: 4 dBi
Omnidirectional
50 ohm
Linear vertical
1 x N-type female
48 x 36 mm (height x diameter)
180 g
for indoor and outdoor use
- 40 to 70 °C
- 40 to 70 °C
IP 66
black
Plastic

Ordering data

Version
Omni-directional antenna, mobile radio (GSM / UMTS), gain up to 2 dBi
Omni-directional antenna, mobile radio (GSM / UMTS), gain up to 4 dBi
Note

Type	Operating temperature	Order No.
IE-ANT-3G-806-2170-2-NF	- 40 to 85 °C	1491160000
Included in delivery: 1 x antenna, 1 x mounting bracket, 2 x clamps for pole mounting		

Type	Operating temperature	Order No.
IE-ANT-3G-806-2500-4-NF	- 40 to 70 °C	1491170000
Included in delivery: 1 x antenna, 1x screw connection and mounting materials for vandal-proof installation		

Connection cable mobile radio antenna

Antenna cable (2 m, 4 m, 6 m)



Technical data

General data	
Impedance	50 Ohm
Min. bending radius (repeated)	50,8 mm
Min. bending radius (once)	12,7 mm
Connector type	Connection 1: N-type (male) Connection 2: SMA (male)
Environmental Limits	
Operating temperature	-40 to 85 °C
UV resistance	Yes
Material data	
Jacket	Polyethylene
Outside diameter	4,95 mm

Ordering data

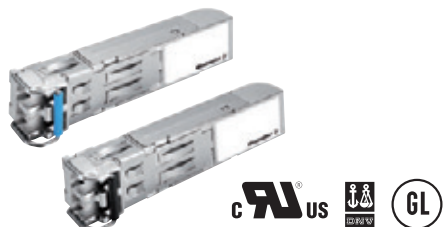
Version	Type	Order No.
Antenna cable, 2m long, N-type (male) -> SMA (male)	IE-CC-NM-SMAM-2M	1491180000
Antenna cable, 4m long, N-type (male) -> SMA (male)	IE-CC-NM-SMAM-4M	1491190000
Antenna cable, 6m long, N-type (male) -> SMA (male)	IE-CC-NM-SMAM-6M	1491210000
Note		



SFP modules (Fast Ethernet/Gigabit Ethernet)

Gigabit Ethernet SFP modules

- Compliant with IEEE 802.3z
- Differential LVPECL inputs and outputs
- TTL signal detect indicator
- Hot pluggable LC duplex connector
- Class 1 laser product; complies with EN60825-1



Technical data

Interfaces				
Ethernet Ports	1			
Connectors	Duplex LC Connector or Simplex LC			
Optical Fibre				
	Gigabit Ethernet			
	SFP-SX	SFP-LSX	SFP-LX	SFP-LHX
Wavelength	850 nm	1310 nm	1310 nm	1310 nm
Max. TX	-4 dBm	-1 dBm	-3 dBm	1 dBm
Min. TX	-9.5 dBm	-9 dBm	-9.5 dBm	-4 dBm
RX Sensitivity	-18 dBm	-19 dBm	-20 dBm	-24 dBm
Link Budget	8.5 dB	10 dB	10.5 dB	20 dB
Typical Distance	550 m ^{a)}	2 km ^{b)}	10 km ^{c)}	40 km ^{c)}
Saturation	0 dBm	-3 dBm	-3 dBm	-3 dBm

^{a)} 50/125 µm, 400 MHz * km or 62.5/125 µm, 500 MHz * km @ 850 nm multimode fibre optic cable

^{b)} 62.5/125 µm, 750 MHz * km @ 1310 nm multimode fibre optic cable

^{c)} 9/125 µm singlemode fibre optic cable

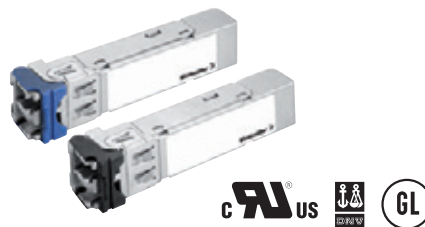
Note: The actual communication distance depends on many factors, including connector loss, cable deployment, and the age of the cabling system. We recommend doing a link budget analysis and reserving a 3 dB margin for such factors.

Environmental Limits	
Operating temperature	Standard Models: 0 to 60 °C (32 to 140 °F) Wide Temp. Models: -40 to 75 °C (-40 to 167 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Ambient Relative Humidity	5 to 95 % (non-condensing)
Approvals	
Security	UL, TÜV
Maritime	DNV, GL
Warranty	
Warranty Period	3 years

Ordering data			
SFP Variants	Type	Operating Temperature	Order No.
Gigabit-Ethernet, Multimode, LC Connector, 500 m	IE-SFP-1GSXLC	0 to +60 °C	1241490000
	IE-SFP-1GSXLC-T	-20 to 75 °C	1286700000
Gigabit-Ethernet, Multimode, LC Connector, 2 km	IE-SFP-1GLSXLC	0 to +60 °C	1241500000
	IE-SFP-1GLSXLC-T	-40 to 85 °C	1286710000
Gigabit-Ethernet, Singlemode, LC Connector, 10 km	IE-SFP-1GLXLC	0 to +60 °C	1241510000
	IE-SFP-1GLXLC-T	-40 to 85 °C	1286720000
Gigabit-Ethernet, Singlemode, LC Connector, 40 km	IE-SFP-1GLHXLC	0 to +60 °C	1241520000
	IE-SFP-1GLHXLC-T	-40 to 85 °C	1286730000

Fast Ethernet SFP modules

- Compliant with IEEE 802.3u
- Differential PECL inputs and outputs
- TTL signal detect indicator
- Hot pluggable LC duplex connector
- Class 1 laser product; complies with EN60825-1



Technical data

Interfaces			
Ethernet Ports	1		
Connectors	Duplex LC Connector		
Optical Fibre			
	Fast Ethernet		
	SFP-M	SFP-S	SFP-L
Wavelength	1300 nm	1310 nm	1550 nm
Max. TX	-18 dBm	0 dBm	0 dBm
Min. TX	-8 dBm	-5 dBm	-5 dBm
RX Sensitivity	-34 dBm	-34 dBm	-34 dBm
Link Budget	26 dB	29 dB	29 dB
Typical Distance	4 km ^{a)}	40 km ^{b)}	80 km ^{b)}
Saturation	0 dBm	-3 dBm	-3 dBm

^{a)} 50/125 µm or 62.5/125 µm, 800 MHz * km @ 1300 nm multimode fibre optic cable

^{b)} 9/125 µm singlemode fibre optic cable

Environmental Limits	
Operating temperature	-40 to 85 °C (-40 to 185 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Ambient Relative Humidity	5 to 95 % (non-condensing)
Approvals	
Security	UL, TÜV
Maritime	DNV, GL
Warranty	
Warranty Period	3 years

Ordering data			
Port Variants	Type	Operating Temperature	Order No.
Fast Ethernet, Multimode, LC Connector, 4 km	IE-SFP-1FEMLC-T	-40 to +85 °C	1241450000
Fast Ethernet, Singlemode, LC Connector, 40 km	IE-SFP-1FESLC-T	-40 to +85 °C	1241470000
Fast Ethernet, Singlemode, LC Connector, 80 km	IE-SFP-1FELLC-T	-40 to +85 °C	1241480000

External Backup and Restore Module for System Configuration

- Reduce system downtime by simple reconfiguration in case of replacing devices
- Plug-n-Play system backup and restoration
- Compact, rugged, reliable design
- Can be used with all Weidmüller managed switches and WLAN components

**Technical data**

Basic Operation		
Connection	RS 232-Interface with RJ45-Connector	
Configuration	Use the WEB-Console of managed Switches	
Power Requirements		
Input Voltage	3 to 5 V DC (through the RS 232 port's RTS signal)	
Technical data		
Housing	PVC molding, IP 40 protection	
Dimensions (W x H x D)	32.5 x 97 x 12 mm (8.07 x 3.82 x 0.47 in)	
Weight	50 g	
Mounting possibility	M4 screw (< 4 mm)	
Cable Length	35 cm (including connector)	
Environmental Limits		
Operating temperature	0 to 60 °C (32 to 140 °F)	
Storage Temperature	-20 to 70 °C (-4 to 158 °F)	
Ambient Relative Humidity	5 to 95 % (non-condensing)	
Approvals		
EMI	FCC Part 15, CISPR (EN55022) Class A	
EMC	EN61000-4-2 (ESD), level 2; EN61000-4-3 (RS), level 3; EN61000-4-4 (EFT), level 3; EN61000-4-5 (Surge), level 3; EN61000-4-6 (CS), level 3	
Warranty		
Warranty Period	5 years	
Ordering data		
Version	Type	Order No.
External Backup and Restore Module	EBR-MODULE RS232	1241430000

Mounting kits for 19" rack, wall, DIN rail

Kit for 19" rack-mounting

- For mounting DIN-rail based devices in 19" racks



Technical data

Technical data	
Dimensions (W x H x D)	481 x 177.8 x 202.4 mm

Ordering data

Version	Type	Order No.
19" Rack Mounting Kit	RM-KIT	1241440000

Wall mounting kit

- Mounting kit for alternative wall-mounting of DIN rail-based Industrial Ethernet components.



Technical data

Usage	
Industrial Ethernet Switches	Product lines: IE-SW-BL05

Ordering data

Version	Type	Order No.
Wall mounting kit	IE-WALLMOUNT-KIT-30MM	1504450000

Wall mounting kit

- Mounting kit for alternative wall-mounting of DIN rail-based Industrial Ethernet components.



Technical data

Usage	
Industrial Ethernet Switches	Product lines: IE-SW- BL06/BL08 IE-SW- VL05/VL08/VL09/VL16 IE-SW- PL06/PL08/PL09/PL10/PL16/PL18
Industrial Ethernet Medienkonverter	Product lines: IE-MC-VL
Industrial Wireless Access Point	Product lines: IE-WL-AP

Ordering data

Version	Type	Order No.
Wall mounting kit	IE-WALLMOUNT-KIT-46MM	1504440000

DIN rail mounting kit

- Mounting kit for alternative mounting of Weidmüller serial/fibre-optic converters (Article 1344760000 and 1362950000) to the DIN rail.



Technical data

Usage	
Serial/fibre-optic converters	Type: 1344760000 1362950000

Ordering data

Version	Type	Order No.
DIN rail mounting kit	IE-DINRAILMOUNT-KIT	1504430000

