



BAT-ANT-N-MiMo5-9N-IP65

943 981-013

Directional, planar, linear polarized Wi-Fi MIMO antenna

IEEE 802.11, 3 x 3 MIMO with 3 pigtail ports

WLAN 5 GHz band 5.15 up to 5.935 GHz

For outdoor or indoor applications IP66 / 67



Directional 3x3 MIMO: Increase performance of your WLAN deployment by having high gain where you need it and low sensitivity where you do not



Mounting kit included: Everything you need for wall and pole mounting. Down- and side tilt bracket included for easy orientation.

Separately available Documentation

- *Mounting Instructions IG_BAT-BAT-ANT-N-MiMo5-9N-IP65*
- *3D Model of the Antenna (STP)*
- *Pattern Diagrams*

Key Features

- *Directional, planar, linear polarized Wi-Fi MIMO antenna*
- *IEEE 802.11, 3 x 3 MIMO with 3 pigtail ports*
- *WLAN 5 GHz band 5.15 up to 5.935 GHz*
- *For outdoor or indoor applications IP66 / 67*
- *Wall mounting material included*
- *Down- and side tilt bracket*
- *Hose clamps included*
- *SMA pigtail adapters included*

Contents

Technical Specifications.....	2
Product Description.....	2
Electrical Data.....	2
Ports.....	2
Mechanical Data.....	3
Environmental Data.....	3
Material Data.....	3
Disclaimer.....	4
Outline Drawings.....	5
Gain.....	8
Radiation Pattern.....	10
S-Parameters.....	11



Technical Specifications

Product Description

Description	Directional, planar, linear polarized Wi-Fi MIMO antenna, IEEE 802.11, 3 x 3 MIMO with 3 pigtail ports, WLAN 5 GHz band 5.15 up to 5.935 GHz, For outdoor or indoor applications IP66 / 67. Wall and mast mounting kit included. SMA adapters included.
Part Number	943 981-013
Product Name	BAT-ANT-N-MiMo5-9N-IP65

Electrical Data

Antenna without mounting bracket:

	Band 1
Frequency (MHz)	5150 - 5935
VSWR	1.7
Impedance (Ohm)	50
Max Gain	8 dBi (6.9 dBi when accounting for the attached cable and connector)
3dB beamwidth (h) (°)	65
3dB beamwidth (v) (°)	65
Composite power max (W)	30
Ambient temperature (°C)	25
Vertical electrical tilt (°)	0
Port Isolation (dB)	20

Note 1: MIMO antenna polarization: 3x linear (vertical, dual-slant ±45°)

Note 2: Electrical data (VSWR, gain and beam width) is derived from the vertical polarized radiator.

Ports

	Port 1	Port 2	Port 3
Connector	N, plug (male)	N, plug (male)	N, plug (male)
Cable Type	SUCOFORM_86_LSFH	SUCOFORM_86_LSFH	SUCOFORM_86_LSFH
Cable Length (m)	0.9	0.9	0.9
Min. radius static (mm)	6	6	6
Band	Band 1	Band 1	Band 1
Polarization	-45° slant	Vertical	+45° slant

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Mechanical Data

	Antenna	Bracket
Dimensions (mm) (Height x Width x Depth)	101 x 81 x 36	55 x 42 x 40
Weight (kg)	0.27	0.1
Included mounting material	Wall mounting material	2 screws M4 L=8mm 2 hose clamps (pole-diameter 25..85 mm)
Material	Radome: LEXAN EXL 9330	Stainless steel
Load	Wind - Frontal: 15 N at 160 km/h Wind speed survival: 220 km/h Wind speed operational: 160 km/h	Tractive force 20 N in x/y/z direction

Environmental Data

	Antenna	Bracket
Environmental conditions	Outdoor or indoor	
Operating temperature (°C)	-40...+85	
Operating conditions	ETSI EN 300 019-2-4 V2.2.2 (2003-04) T4.1E	
Storage temperature (°C)	-40...+85	
Transport temperature (°C)	-40...+85	
Flammability rating	Antenna: UL 94-V0, Pigtail: UL 1581	
Solar radiation	UL 746C, F1	
RoHS 2011/65/EU (including 2015/863 and 2017/2102)	Compliant	Compliant
Lead-free soldered	Yes	
WEEE 2012/19/EU	Special marking needed	
REACH 1907/2006/EC	Compliant	Compliant
Ingress protection	IP66, IP67 (according to EN 60529)	
Vibration and mechanical shock	IEC 61373, Category 2 (Bogie mounted) IEC 60068-2-6 Fc: Vibration (sinusoidal) IEC 60068-2-27 Ea and guidance (shock) IEC 60068-2-64 Fh: Vibration, broadband random and guidance	

Note 1: Please ensure a mounting, such that the pigtail cables exit the antenna in a straight line and ensure proper strain relief. Avoid swinging and oscillations on the cable to prevent any additional forces on the antenna.

Note 2: IEC 60068-2 tests have been carried out in accordance with parameters according to ETSI EN 300 019-2-4, specification T 4.1E, class 4M5.

Note 3: Vibration and mechanical shock tests have been carried out without the connecting cables

Material Data

	Antenna	Bracket
Radome color	RAL 7044 (grey)	
Radome material	PC (Polycarbonate)	

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Disclaimer

Product Performance

The products are tested in a laboratory environment against specific standards and test procedures and guaranteed to this level of performance. Any guarantee for exceptional applications or environmental conditions is subject to special request.

ESD (Electrostatic Discharge) and Over-Voltage Protection

If this product is marked with an ESD label, protection against electrostatic discharge (ESD) and/or over-voltage is essential while handling the product:

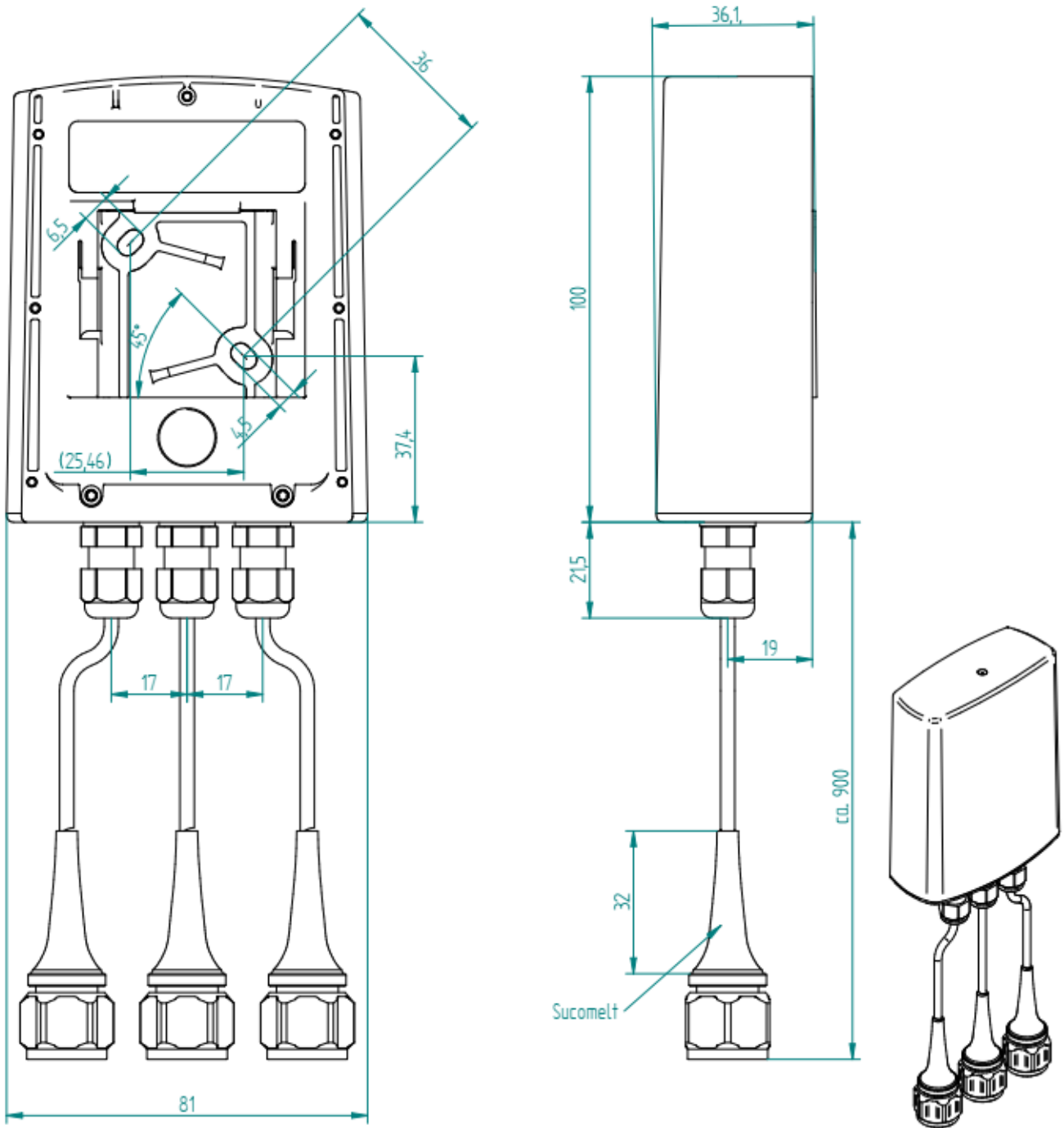
- *Always ground yourself before removing the protection cap from the connector and during installation.*
- *Always discharge the feeder cable before connecting it to the antenna.*

This product is functionally tested prior to shipping. Belden does not take responsibility for damage caused to the ESD-sensitive device due to improper handling during unpacking or installation.

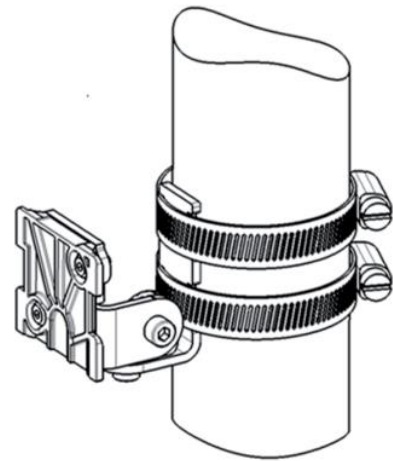
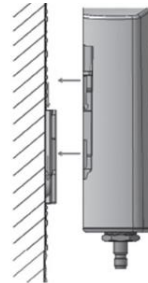
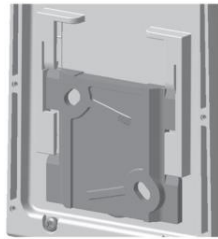
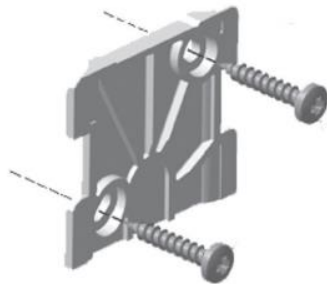
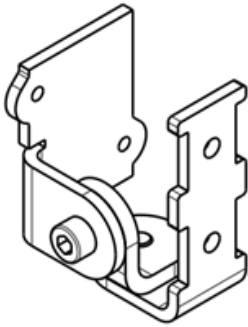
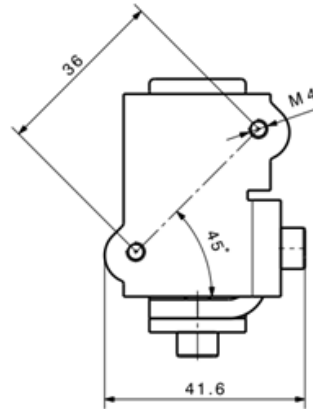
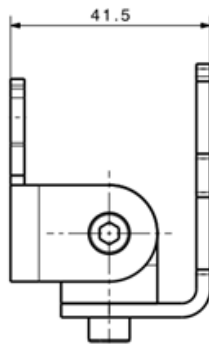
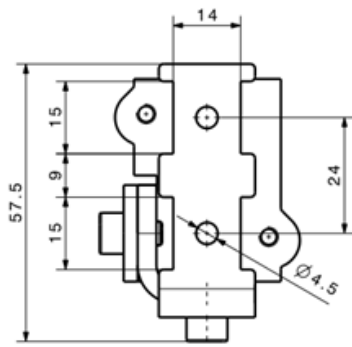
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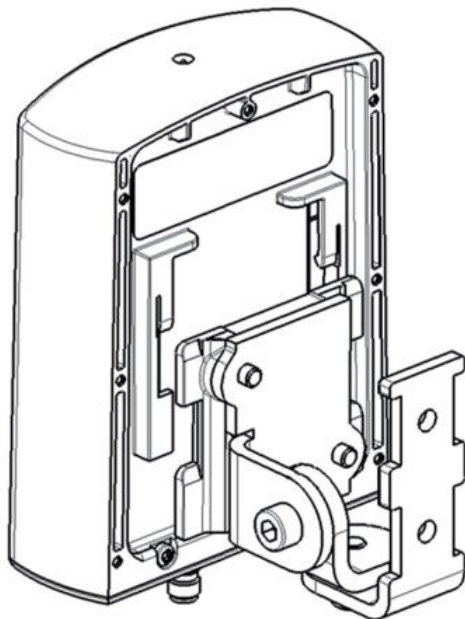
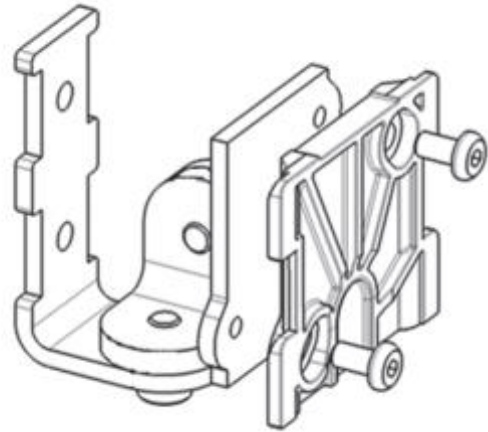
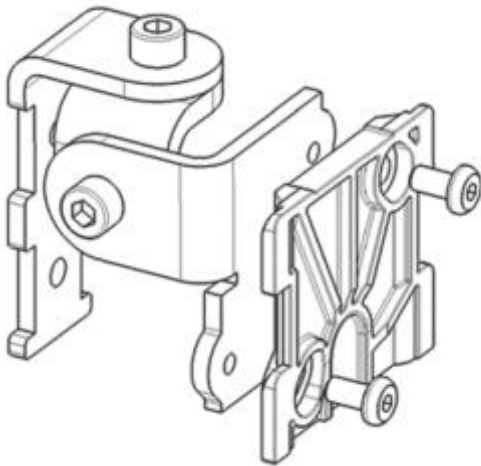
Outline Drawings



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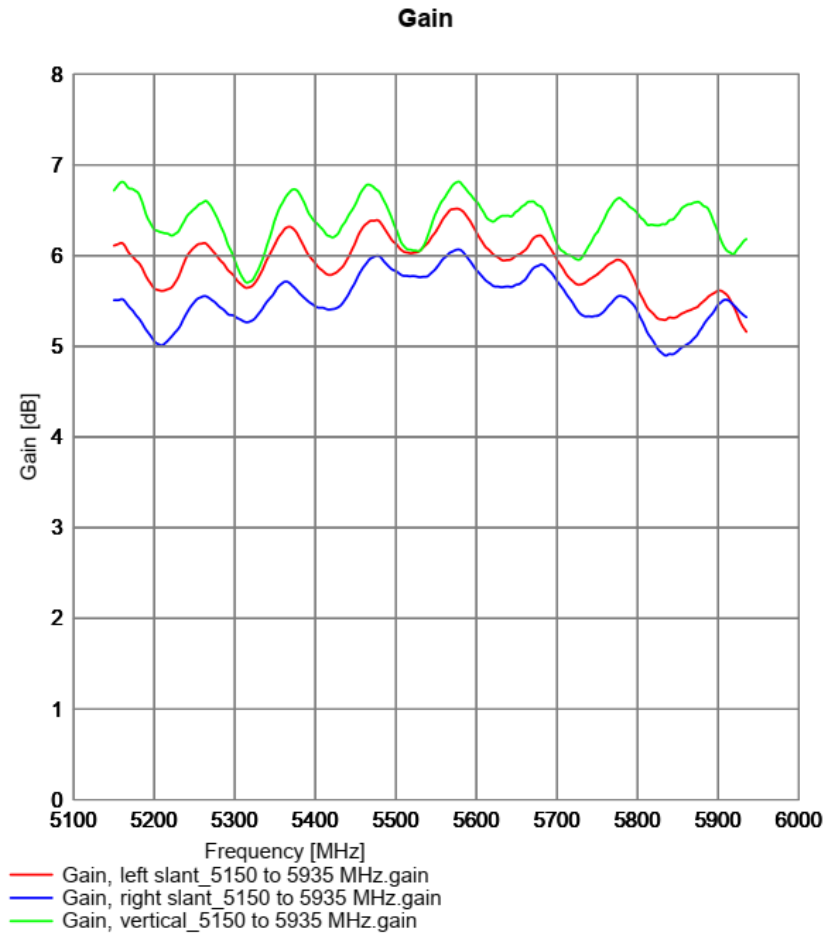
Accessories



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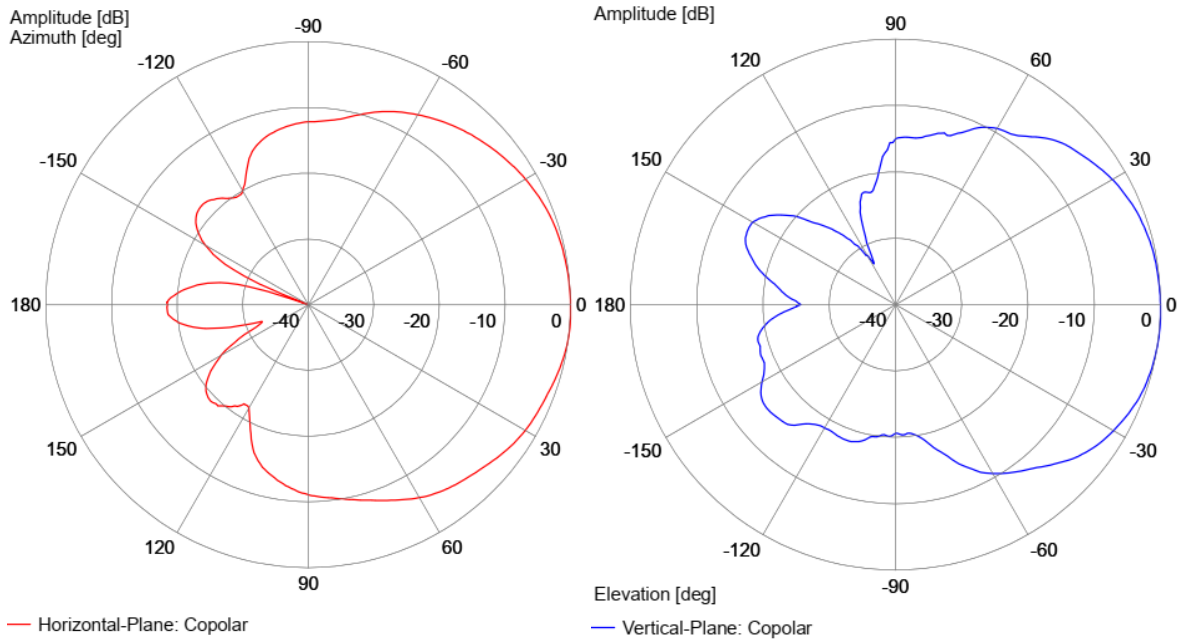
Gain



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Radiation Pattern



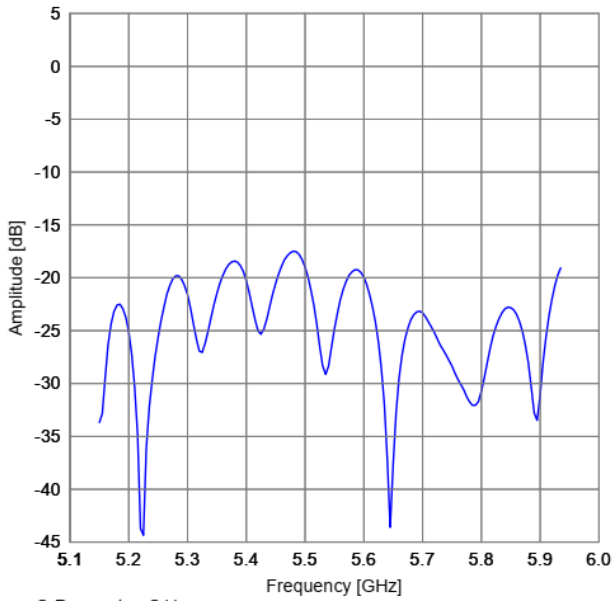
Pattern excerpt for 5150 MHz on the vertical port. For other combination check the pattern diagrams documentation.

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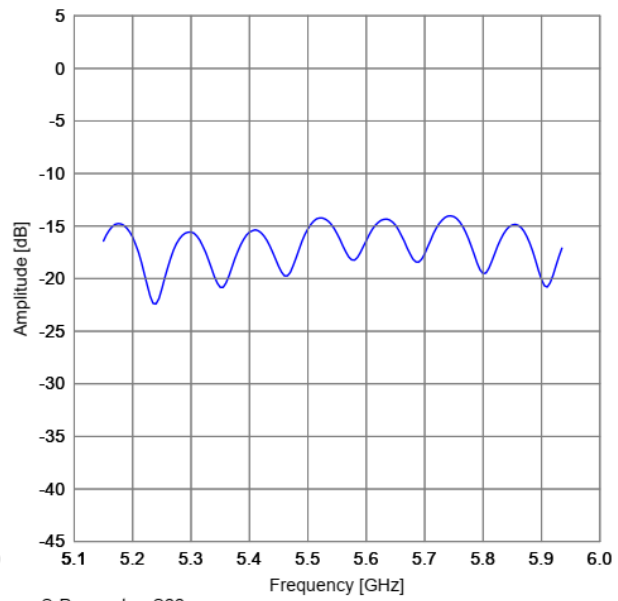
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S-Parameter



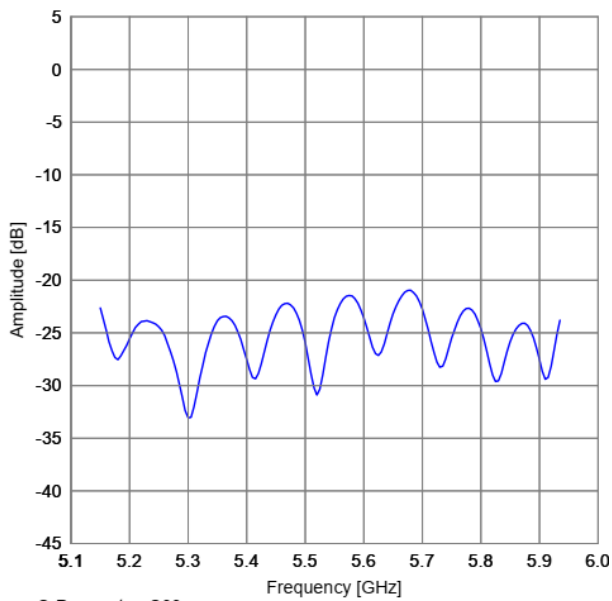
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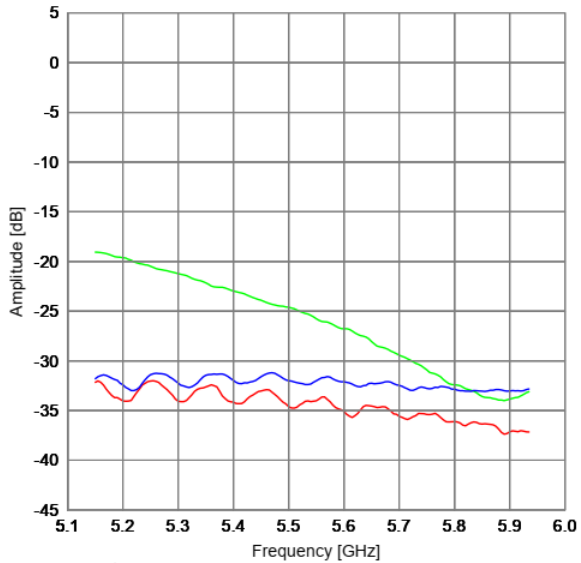
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S-Parameter



— S-Parameter: S33

S-Parameter



— S-Parameter: S21
— S-Parameter: S31
— S-Parameter: S32

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