



Features:

- 3G antenna:
 - 824-960/1710-2170MHz
- RoHS Compliant
- Diameter 100mm
- IP67
- Cable and connector options shown on page 2.

Applications:

- Vehicular use
- Utility boxes
- Smart metering
- Navigation, Fleet Management, Tracking

All dimensions are in mm / inches

Issue: 1902

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

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This document covers all product variants of the following product family

Antennas	GSM Cable		
	Cable Type	Cable Length	Connector
W4166	RG-174 Black	1500mm/59.1"/4.9'	SMA Male
W4166W	RG-174 White	1500mm/59.1"/4.9'	SMA Male

P.S. W4166 and W4166W are the same part, just with different color.

ELECTRICAL SPECIFICATIONS

Frequency (GSM)	824-960/1710-2170 MHz
Nominal Impedance	50 Ω
VSWR** (GSM)	< 2:1
Average Peak Gain* (GSM antenna, Low band, typical)	4 dB
Average Peak Gain* (GSM antenna, High band, typical)	4.5 dB

*Measured on diameter 500mm GND plane and with 5 inch cables

** Measured on diameter 500mm GND plane and with 10 feet cables

Series: DISC

MECHANICAL SPECIFICATIONS

Antenna Color / Material	W4166: Black W4166W: White
Connector type	SMA Male
Cable type	W4166: RG-174, Black W4166W:RG-174, White
Cable length	1500mm
Fixing system	Direct Mount P.S. requires a 3/4" (19mm) hole in the mounting surface.
Connector retention	30 N
Strain relief	30 N, applied to cable along axis and perpendicular to cable entry

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40 ~ 85° C
Storage Temperature	-40 ~ 85° C
Ingress Protection	IP67
Wind-loading	160 km/h
RoHS Compliant	Yes

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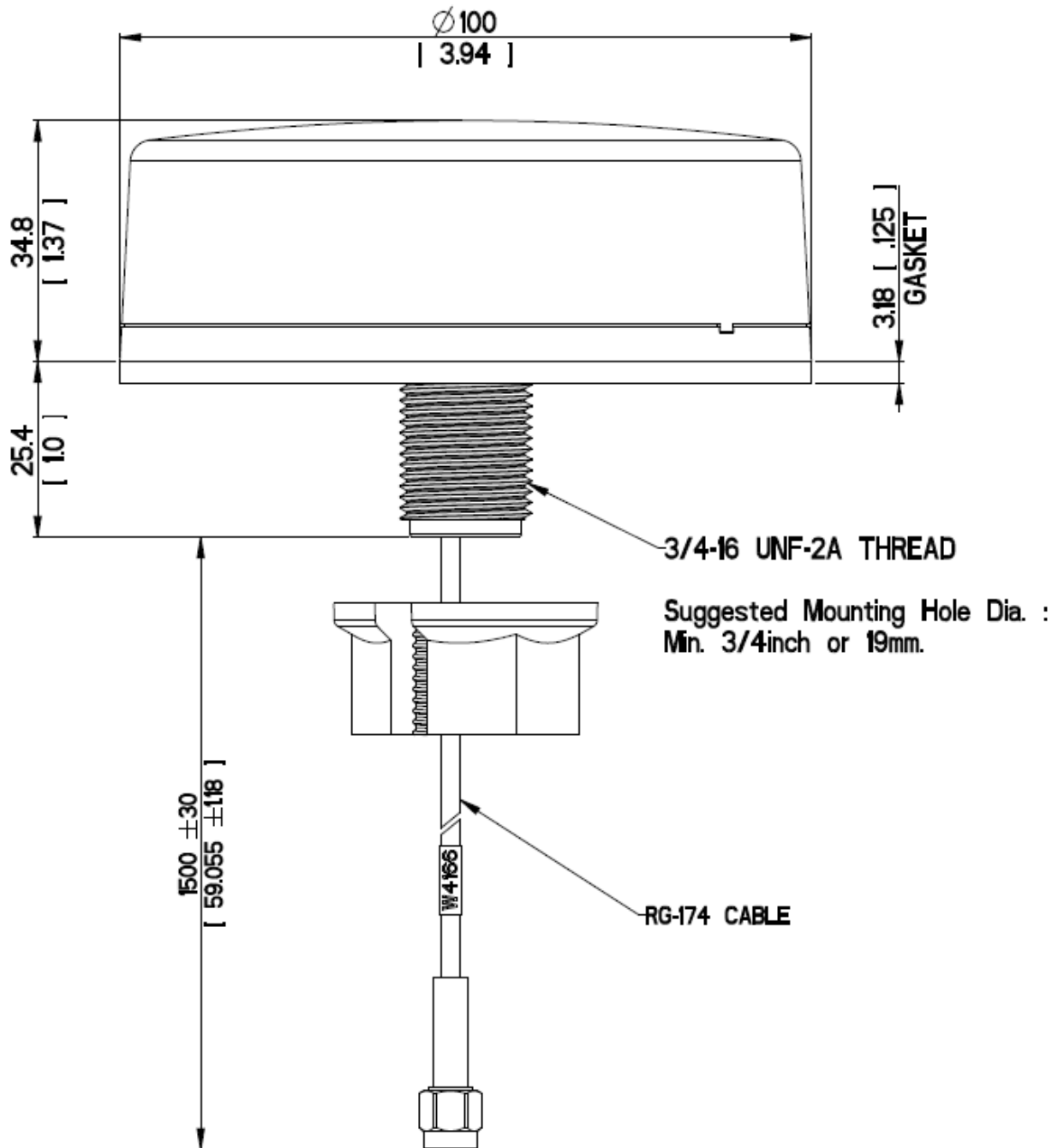
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Series: DISC

MECHANICAL DRAWING



Issue: 1902

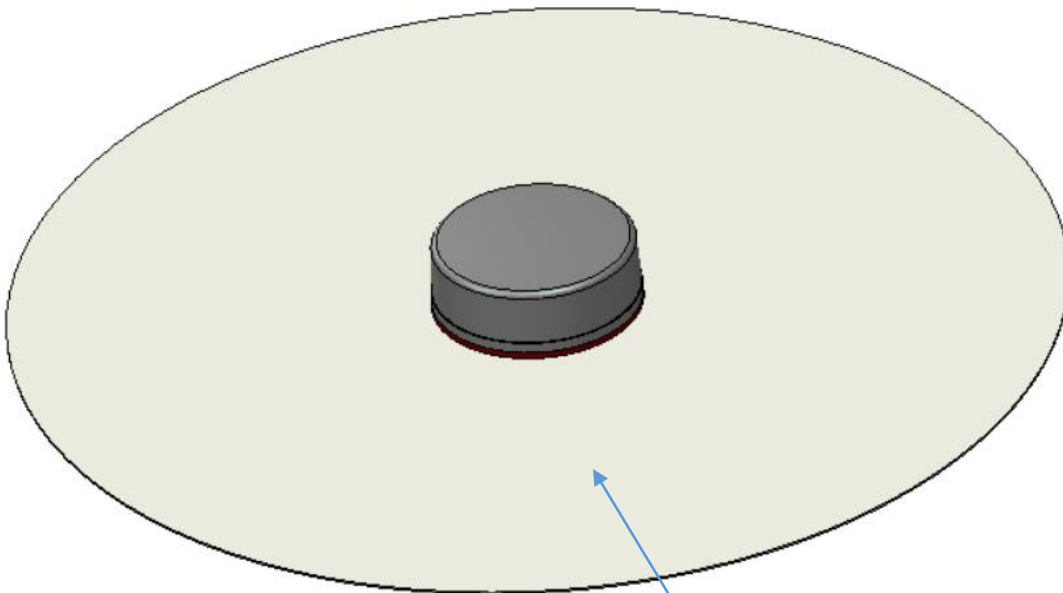
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Series: DISC

TEST SETUP

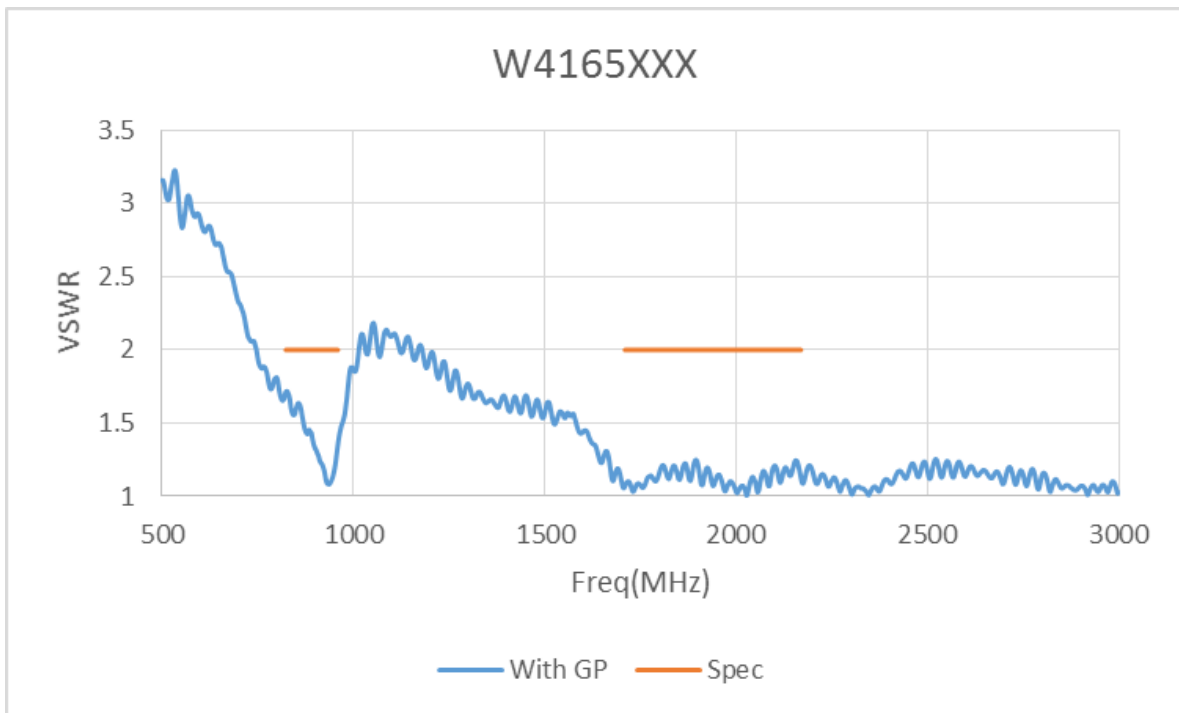


Diameter: 500 mm ground pane

Series: DISC

CHARTS

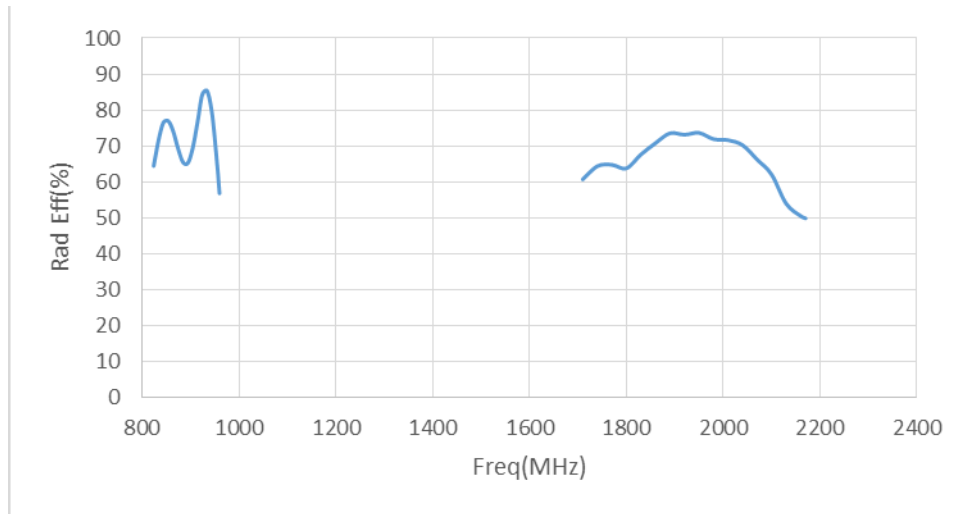
VSWR*



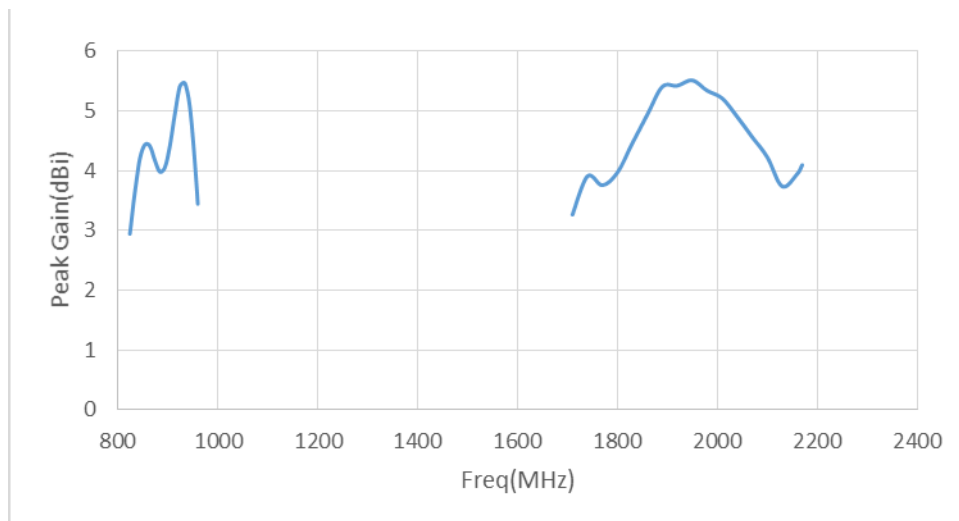
Series: DISC

CHARTS

GSM antenna total efficiency*



Maximum 3D gain, GSM antenna*



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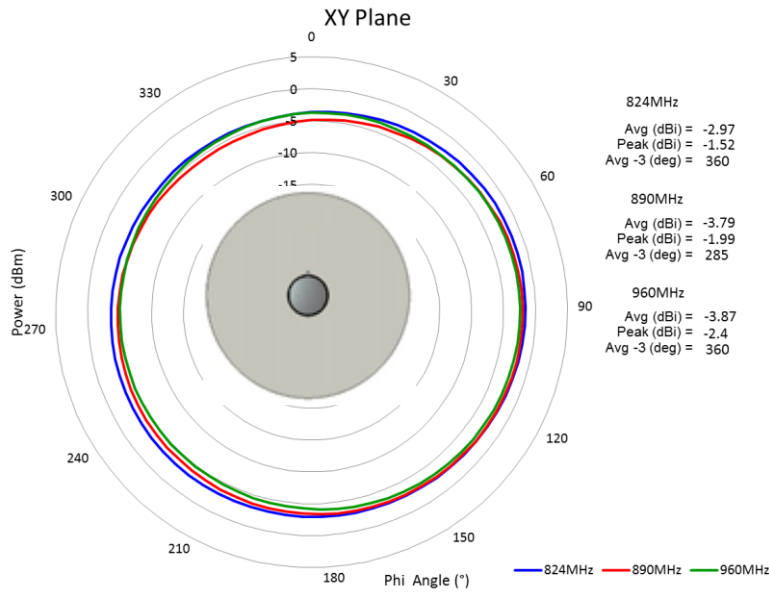
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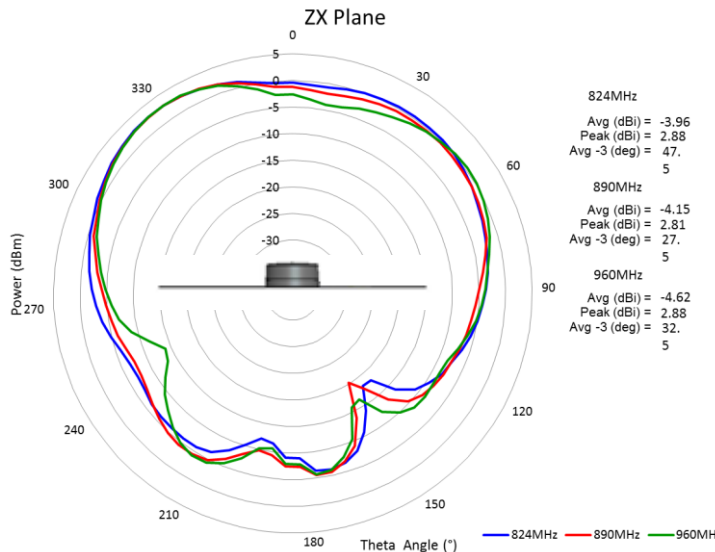
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CHARTS

GSM antenna Low band Radiation Pattern X-Y Plane*



GSM antenna Low band Radiation Pattern Z-X Plane*



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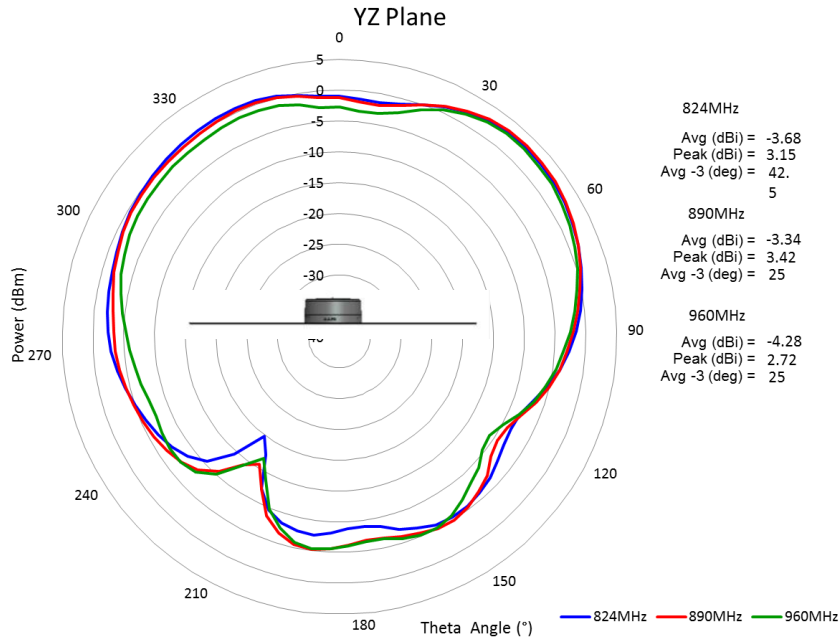
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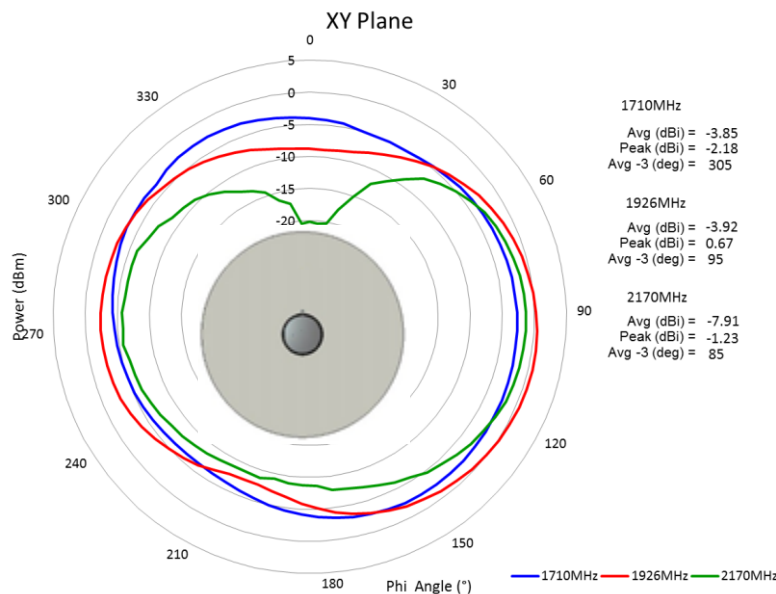
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CHARTS

GSM antenna Low band Radiation Pattern Y-Z Plane*



GSM antenna High band Radiation Pattern X-Y Plane*



Issue: 1902

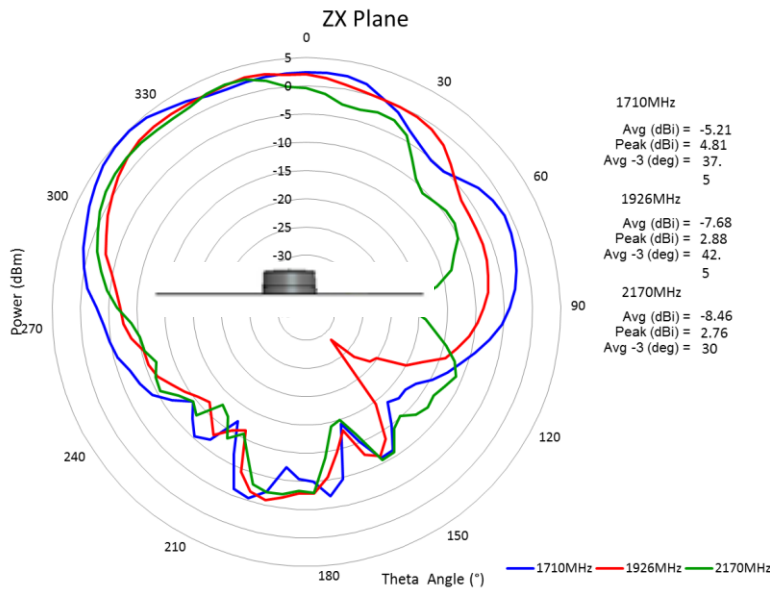
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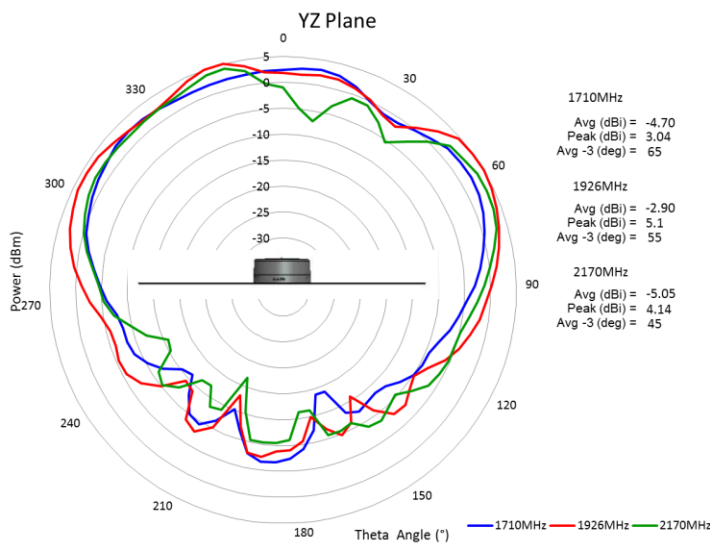
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CHARTS

GSM antenna High band Radiation Pattern Z-X Plane*



GSM antenna High band Radiation Pattern Y-Z Plane*



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PACKAGING

1 antenna packed in a PE bag

24 PE bags of antennas packed in a carton

1 label on each carton with part number, description, date code.