

Description: 3G 880-960/1710-2170MHz + GNSS Antenna

Series: Internal FPC Antenna PART NUMBER: W3915



Features:

- Cellular 880-960/1710-2170MHz
- GNSS 1575.42-1605MHz
- Radiator size 74x19mm
- Cable length 100mm
- U.FL compatible connectors
 - Port 1: Cellular
 - Port 2: GNSS

Applications:

- 2G, 3G radios with GNSS support
- Satellite navigation
- Telematics, Asset tracking
- Fleet management

Issue: 1730

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



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ELECTRICAL SPECIFICATIONS (1)

(1) Antenna attached on 2mm thick polycarbonate plate during electrical parameters' measurements

Frequency	Cellular:	880-960 MHz/1710-2170MHz
	GNSS:	1565-1605MHz
Nominal Impedance		50Ω
Return Loss 880-915 (925-960)		6dB (4dB)
Return Loss 1710-2170		8dB
Return Loss 1575-1605		8dB
Isolation Cellular-GNSS		15dB
Total Efficiency 880-960		50%
Total Efficiency 1710-2170		75%
Total Efficiency 1575-1605		55%
Peak Gain 880-960		1dBi
Peak Gain 1710-2170		2dBi
Peak Gain 1575-1605		0.5dBiC
Power withstanding		24dBm CW

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MECHANICAL SPECIFICATIONS

Weight	2.35 g
Radiator size	74 x 19 mm
Radiator thickness with adhesive tape	0.2 mm
Connector type	u.FL compatible
Cable type	Ø1.13 coaxial cable
Cable length	100mm
Mounting with adhesive tape	3M467

ENVIRONMENTAL SPECIFICATIONS

Operating temperature	-40 - +65 °C
Temperature	50 °C
Humidity	85%RH

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MECHANICAL DRAWING

74.0±0.3 19.0±0.3 Electronics W3915 V02 FPC (black soldermask + white codes) 100 +6/-0 Ø 1.13coaxial cable 880-960/1710-GNSS 2170MHz port 1575.42-1605MHz port u.FL RF connector All dimensions are in mm.

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OTHER SPECIFICATIONS

Test setup for all RF parameters



2mm thick polycarbonate plate

U.FL – SMA adapters

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CHARTS



GNSS Antenna Total Efficiency %



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CHARTS E 144 144 144 144 146 128 128 128 128 124 120 116 112 08 04 /atic. Elevation 108 104 100 -30 -100 -96 -92 -88 -84 -80 -76 -72 -880000000 -920000000 960000000 -68 -64 theta, deg 320 316 316 300 300 296 296 288 284 280 776 280 276 80 84 -35 -880000000 272 88 -40 -920000000 92 96 100 268 264 96000000 260 104 108 112 116 phi, deg

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theta=90deg



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phi, deg theta=90deg



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CHARTS

Levat. -174724686459565248 -174724686459565248 -132 -132 -132 -132 -124 -120 -112 -100 -96 -92 1575000000 1605000000 theta, deg *th* , 12_{16202428323640444852566064 66872768084865} 84 88 92 276 -30 272 268 -1575000000 -35 -1605000000 264 96 260 256 252 100 104 108 112 116 phi, deg theta=90deg

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PACKAGING

25pcs antennas/sealed plastic bag, plastic bag size: 120mmx180mm;

1000pcs antennas/packing carton box, carton box size:460mmx235mmx140mm.

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