GSM Penta Band Antenna

ANT-PCB4242

Features

- 800/900/1800/1900/2100MHz
- Omni Directional 1/2 Wave
- Miniature 42 x 42 x 1mm
- VSWR < 3.0
- RG178 Coax 50Ω Impedance
- 2-3dBi Gain (nominal)
- Vertical Polarization
- Admitted Radiation Power 1W
- iPex/UFL Connector
- Operating temp -40 to +70°C



Applications

- Embedded GSM Systems
- For World-wide Use

Ordering Information

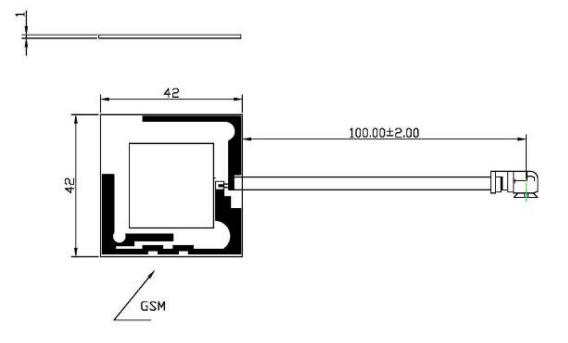
Part Number	Description
ANT-PCB4242-FL	Miniature PCB Penta Band Antenna



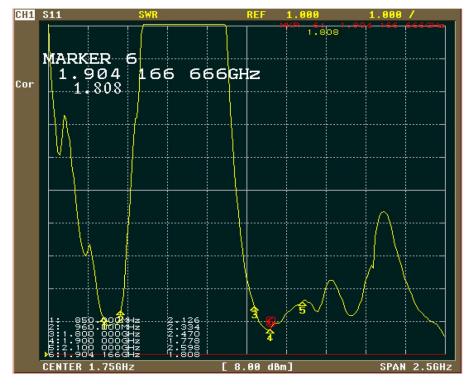
ANT-PCB4242



Mechanical Detail



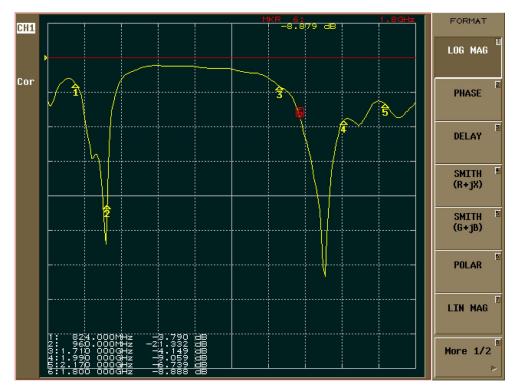
Performance Data — TEST VSWR



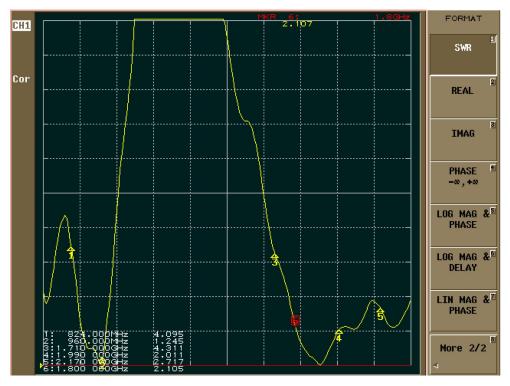


ANT-PCB4242

Performance Data — VSWR



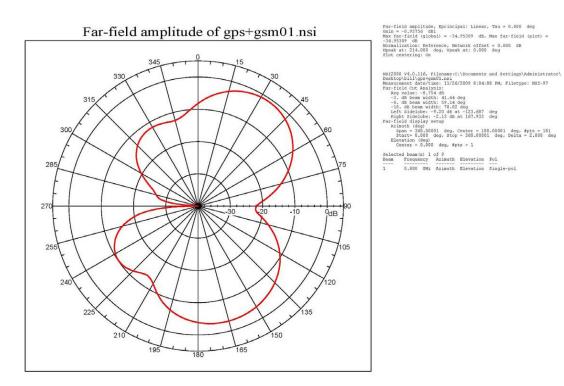
Performance Data — RETURN LOSS



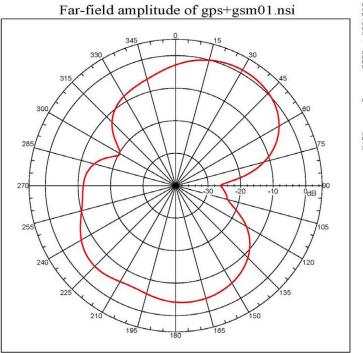




Performance Data—Smith Chart @ 880MHz



Performance Data—Smith Chart @ 920MHz



Far-field asplitude, Eprincipal: Linear, Tau = 0.000 deg Gain = 1.05571 dBi Max far-field (global) = -33.66057 dB, Max far-field (plot) = -33.66058 dB Mormalization: Reference, Network offset = 0.000 dB Hpank at 222.000 deg Floc entering: on

HII2000 V4.0.116, Fliename:C:\Documents and Settings\Administratoc\ Desktop\bil\great_gamble.nsi Messurement docfline: 11/26/2009 8:04:08 EW, Flietype: NST-97 FARY value: -0.512 dd -3. db Deam width: 10.5. dog -10. db Deam width: 10.5. dog Left SidoLote: -4.99 dh at 137.367 deg Kight sidoLote: -4.99 dh at 137.367 dh at 137.367 dh at 137.367 dh at 137.367 dh at 137.377 dh at 137.3777 dh at 137.3777 dh at 137.3777 dh at 137.3777 dh a
 Selected beam(s)
 1 of 9

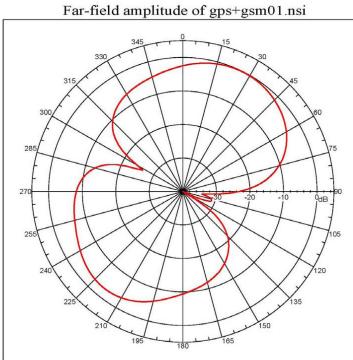
 Beam
 Frequency
 Azimuth
 Elevation
 Fol

 2
 0.920
 GHz
 Azimuth
 Elevation
 Fol





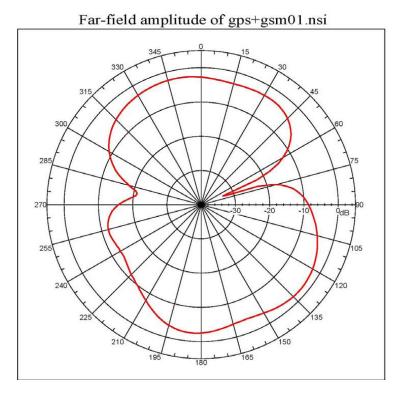
Performance Data—Smith Chart @ 960MHz



Par-field amplitude, Eprincipal: Linear, Tau = 0.000 deg Gain = -1.1222° dBi (0,0) = -35.22531 dB, Max far-field (plot) = -35.25531 dB, Max far-field (plot) = -3

NBI2000 V4.0.116, Fliename:C:\Documents and Fettings\Administrator\ Destroyhillygs+gmB0.nei Messurement davofians 11.76/2009 6:04:08 FM, Flietype: N3I-97 FM yavalue: -7.250 dB -3. db beam vidth: 53.19 deg -10. db beam vidth: 113.50 deg -11. db beam vidth: 113.50 deg -12. db beam vidth: 113.50 deg -13. db beam vidth: 113.50 db beam vidth: 1 ed beam(s) 1 of 9 Prequency Azimuth Elevation Pol 0.960 GHz Azimuth Elevation Single-pol

Performance Data—Smith Chart @ 1710MHz



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg Gaim = -1,03366 dBi Max Tar-field (global) = -41.61911 dB, Max far-field (plot) = -41.61913 dB Normalization: Reference, Network offset = 0.000 dB Hpeak at: 305.93939 deg, Vpeak at: 0.000 deg Flot centering: Ga

NIT2000 V4.0.116. Fileness:C:\Documents and Settings\Administrator\ Deaktoyhil\gprymal.emi Measurement daw(fime: 11/26/2009 8:04:08 BM, Filetype: NSI-97 Far-field Cut Analyzis: Avg value: - 5.957 dB -3. dB beam width: Not Found -10. dB beam

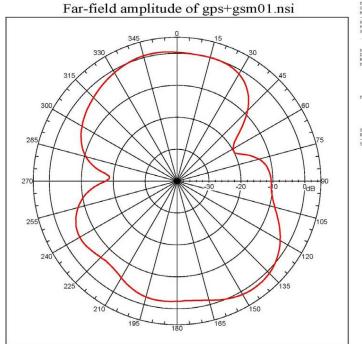
 Selected beam (s) 1 of 9

 Beam
 Prequency
 Azimuth
 Elevation
 Pol

 4
 1.710 GHz
 Azimuth
 Elevation
 Single-pol



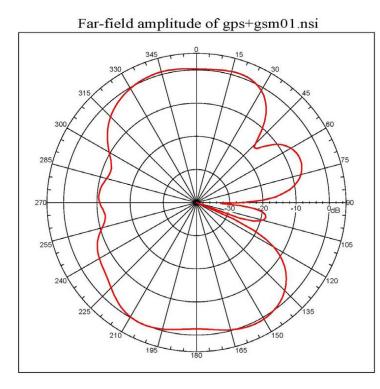
Performance Data—Smith Chart @ 1785MHz



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg Gain = 1.21440 (Bb) = -40.52190 dB, Max far-field (plot) = -40.522 dB -2000 (Global) = -40.52190 dB, Max far-field (plot) = -40.522 dB -2000 dB

12000 v4.0.116, Filename:G:Documents and Tettings\Administratoc\ hetcopbiliygergum01.mi astrometh.dec/fine:11/26/2008 8:04:08 PM, Filetype:NST-97 Arg value: -3.949 d6 -3. db beam width: Not Found -3. db beam width: Not Found Left sidelobe: Not Found Left sidelobe: Not Found Activation and the strong Right sidelobe: Not Found Right sidelobe: Not Found Right sidelobe: Not Found Exection (Section 2000 deg, #pts = 101 Conter = 0.000 deg, #pts = 1 lected beam() 1 of 9 Selected beam(s) 1 of 9 Beam Frequency Arisuth Elevation Fol 5 1.705 GHz Arisuth Elevation Single-pol

Performance Data—Smith Chart @ 1850MHz



Far-field amplitude, Sprincipal: Linear, Tau = 0.000 deg Gala = 0.07483 dBL (0.0748) dBL (0.

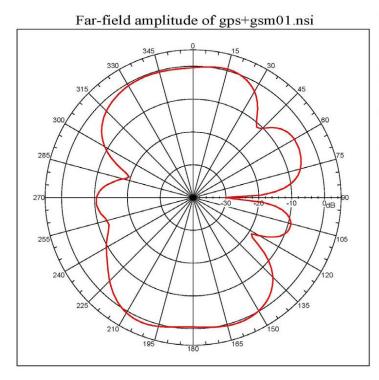
N#I2000 V4.0.116, Fllename:C\Documents and Settings\Administrator\ Desktop\Sillygs=gmm01.nei Mesurusent darofians: 11.26/2009 8:04:08 FM, Flletyps: N3I-97 FM yavales: -4.854 db. -3. db Deam Width: 72.51.deg -10. db Deam Width: 79.55 deg Left zidelube: -1.15 db at -65.475 deg Flight zidelube: -1.14 db at -65.475 deg Elegation (deg) deg, Setter = 100.0001 deg, Fpts = 181 geam = 100.001 deg, Center = 100.0001 deg, Fpts = 181 Elegation (deg) deg, Setter = 20.000 deg Elegation (deg) deg, Sette = 1 Selected beam (s) 1 of 9

Selected beam(s) 1 of 9 Beam Frequency Arimuth Elevation Fol 6 1.050 GHz Arimuth Elevation Single-pol





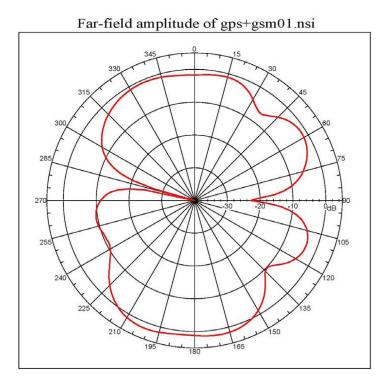
Performance Data—Smith Chart @ 1880MHz



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg Gain = 1.1225 dBi Max far-field (global) = -41.25224 dB, Max far-field (plot) = -41.25223 dB Normalization: Reference, Network offset = 0.000 dB Hgeak at: 22.000 deg Vgeak at: 0.000 deg Floc entering: Ga

NBI2000 V4.0.116, Fllename:C:\Documents and Settings\Ndministrator\ Dealtopkillygps-gmm01.msi Mosurcent datofline; 11/26/2009 8:04:08 PM, Filetype: NBI-97 PM y value: -4.118 dB -3. db beam width: NF Frond -1.6. db beam width: NF Frond Left sidelobe: The Frond Right sidelobe: The Frond Right sidelobe: The Found Right sidelobe: Th ected beam(s) 1 of 9 m Prequency Azimuth Elevation Fol 1.800 GHz Azimuth Elevation Single-pol

Performance Data—Smith Chart @ 1920MHz



Far-field applitude, Dirincipal: Linear, Tau = 0.000 deg Sain = 1.0002 dBi Max far-field (global) = -42.12440 G db, Max far-field (plot) = -42.12440 G db, Max far-field (plot) = -42.12440 G db (for the control of the control

NEI2000 V4.0.116, Filename:C:\Documents and Settings\Administrator\ Desktop\billygs'gma0l.nsi Measurement descrime; II262/2009 8:04:08 PM, Filetype: N0I-97 Farst and the set of the set of

 Selected beam (s) 1 of 9

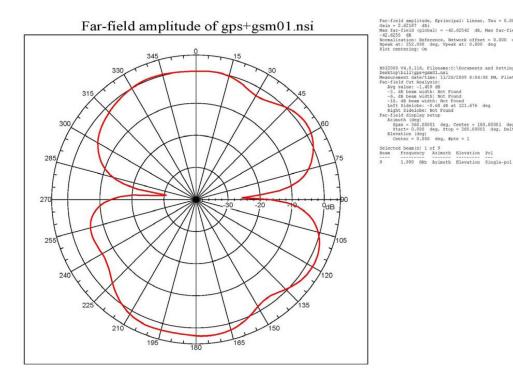
 Beam
 Prequency
 Azimuth
 Elevation
 Fol

 0
 1.920 GHz
 Azimuth
 Elevation
 Single-pol

O www.rfsolutions.co.uk



Performance Data—Smith Chart @ 1990MHz



RF Solutions Ltd. Recycling Notice

Meets the following EC Directives:

DO NOT

Discard with normal waste, please recycle.

ROHS Directive 2011/65/EU and amendment 2015/863/EU Specifies certain limits for hazardous substances.

WEEE Directive 2012/19/EU

Waste Batteries and Accumulators Directive 2006/66/EC

dBi (global) = -42.62542 dB, Max far-field (plot) = Network offset = 0.000 dB eak at: 0.000 deg

121.676 deg .00001 deg, Center = 180.00001 deg, #pts = 181 80 deg, Stop = 360.00001 deg, Delta = 2.000 deg

n (deg) = 0.000 deg, #pts = 1 am (5) 1 of 9 Muency Azimuth Elevation Pol

ents and Settings\Administrator

Where batteries are fitted, before recycling the product, the batteries must be removed and disposed of at a licensed collection point.

Waste electrical & electronic equipment. This product must be disposed of through a licensed WEEE collection point. RF Solutions Ltd., fulfils its WEEE obligations by membership of an approved compliance scheme. Environment Agency Producer Registration Number: WEE/JB0104WV.

Disclaimer

Whilst the information in this document is believed to be correct at the time of issue, RF Solutions Ltd does not accept any liability whatsoever for its accuracy, adequacy or completeness. No express or implied warranty or representation is given relating to the information contained in this document. RF Solutions Ltd reserves the right to make changes and improvements to the product(s) described herein without notice. Buyers and other users should determine for themselves the suitability of any such information or products for their own particular requirements or specification(s). RF Solutions Ltd shall not be liable for any loss or damage caused as a result of user's own determination of how to deploy or use RF Solutions Ltd's products. Use of RF Solutions Ltd products or components in life support and/or safety applications is not authorised except with express written approval. No licences are created, implicitly or otherwise, under any of RF Solutions Ltd's intellectual property rights. Liability for loss or damage resulting or caused by reliance on the information contained herein or from the use of the product (including liability resulting from negligence or where RF Solutions Ltd was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict RF Solutions Ltd's liability for death or personal injury resulting from its negligence.

'n

www.rfsolutions.co.uk

RF Solutions Ltd William Alexander House, William Way, Burgess Hill, West Sussex, RH15 9AG Sales: +44 (0)1444 227900 Tech Support: +44 (0)1444 227909