



Specification

SPECIFICATION

- Part No. : **PC-2708**
- Specification No : PC-2708-09
- Product Name : **TheStripe™** 850/900/1800/1900MHz GSM PCB Antenna w/40mm Ipex 1.13 mm diameter stripped end
- Features : 34mm*7mm*0.8mm
Stripped end for direct solder connection



Photo :

REVISION STATUS

Version	Date	Page	Revision Description	Prepared	Approved
01	Feb 15 th 2007	All	New Product	TW Product Centre	Ronan Quinlan



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1.0 Introduction

This miniaturized low profile PCB antenna is based on smart TheStripe™ antenna technology. It consists of a Quad-band GSM omni-directional PCB antenna and 1.13 mm mini coaxial cable with stripped ending suitable for direct solder connections. Tuned for freespace conditions it is suited to benchmark performance testing connected to a client's GSM device. Optimization can be achieved by further tuning of the antenna at a Taoglas facility upon receipt of client's housing and board.

2.0 Antenna Performance

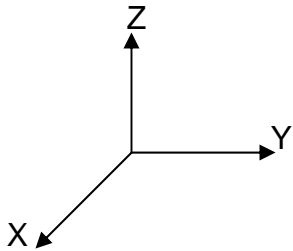
2.1	Communication System	AMPS	GSM	DCS	PCS
2.2	Frequency Band	850 MHz	900 MHz	1800 MHz	1900 MHz
2.3	VSWR	5.53	3.61	1.53	3.46
2.4	Return Loss	-3.17 dB	-4.94 dB	-13.56	-5.16
2.5	Impedance	50 Ohm			
2.6	Radiation Pattern	Omni-Directional			
2.7	Polarization	Horizontal			

3.0 Mechanical Dimensions

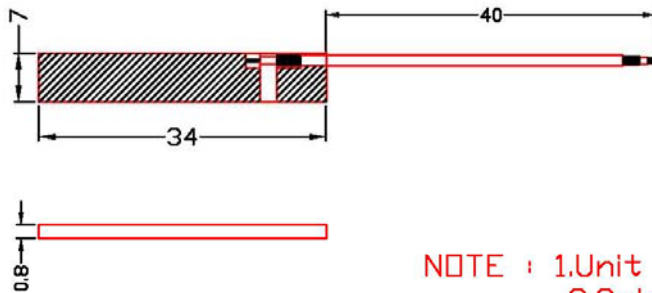


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3.1 Dimensions and Drawing



Note : 1. The upper face of the PCB is in the Z axis
 2. Connector positioning is towards the X direction



NOTE : 1.Unit : mm
 2.Cable : 1.13 cable
 3.Strip : Braid/Insulation/Conductor
 2 / 1 / 1

3.2 Cable & Connector

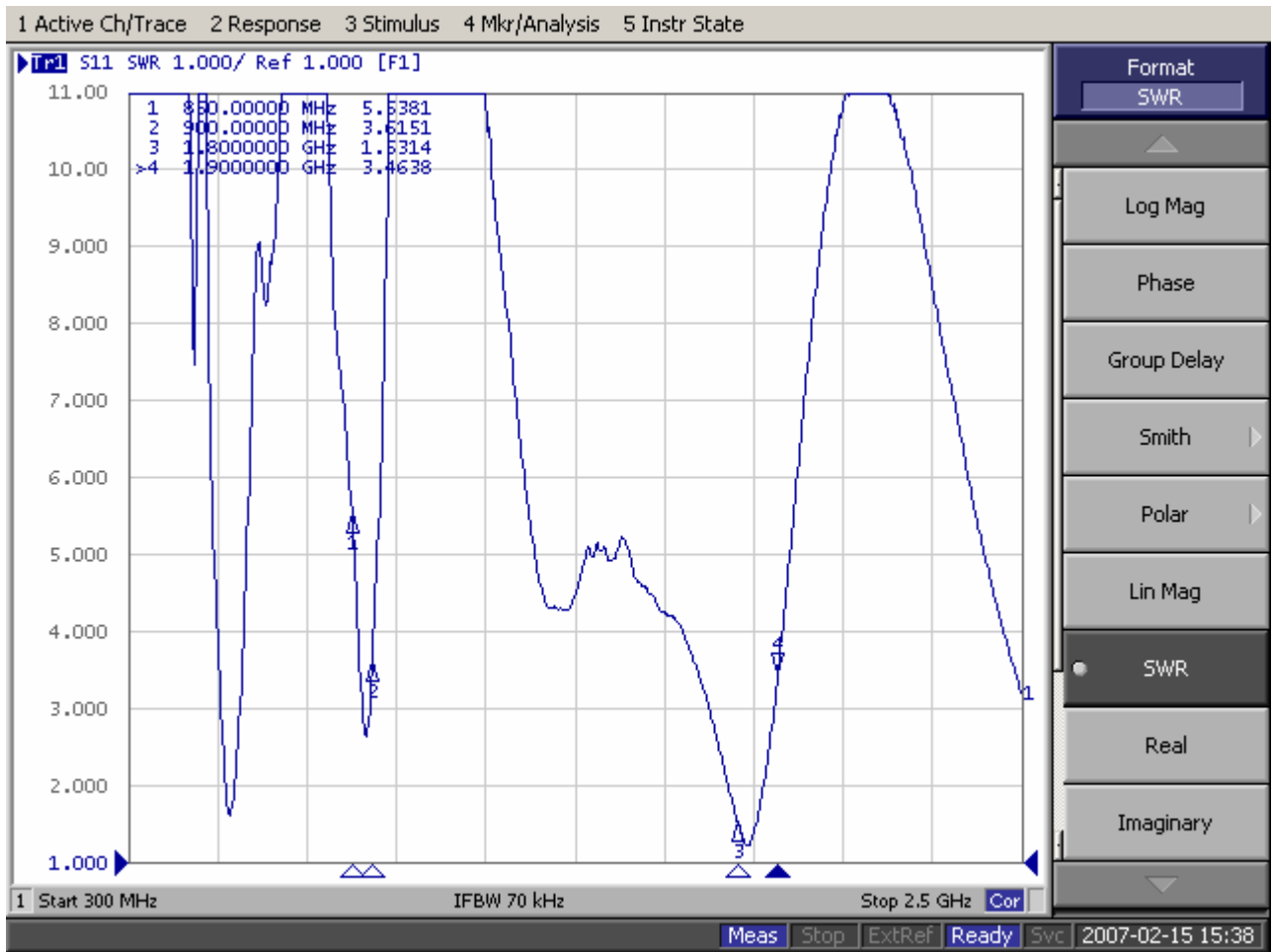
3.2.1	RF Cable	RF Coaxial Cable 1.13 mm Diameter L = 40 mm White
3.2.2	RF Connection	Stripped End Braid/Insulation/Conductor 2/1/1mm

4.0 Antenna Electrical Characteristics



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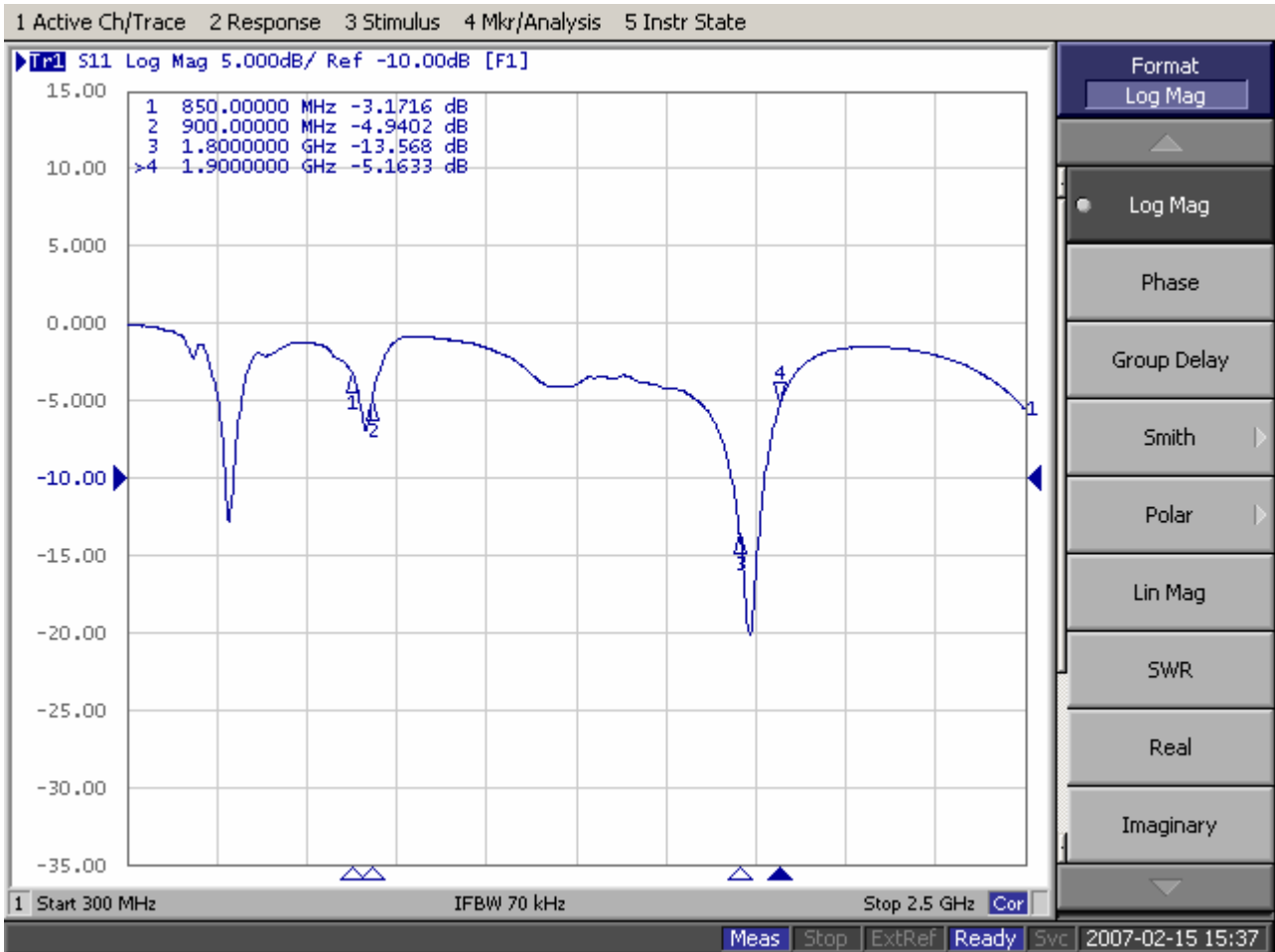
4.1 VSWR



4.2 Return Loss



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5.0 Environmental Conditions and Reliability



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5.1 Environmental Conditions

5.1.1	Operation Temperature	-20°C to + 65°C
5.1.2	Storage Temperature	-30°C to + 75°C
5.1.3	Relative Humidity	40% to 95%

5.2 Reliability

Test Items	Procedure	Requirement
Thermal Shock	Starting at -40 for 30minutes and then cycled to +85 to remain 30minutes (a complete cycle). To repeat 5 complete cycles. (Refer to IEC 68-2-14 Method Na)	<ol style="list-style-type: none"> The value of return loss must be within product specifications after this test. No physical deformation should be evident.
Storage Temperature (Cold)	Samples must be put into -30°C chamber for 72 hours and samples shall be powered during test. (Refer to IEC 68-2-1 Method Aa)	<ol style="list-style-type: none"> The value of return loss must be within product specifications after this test. No physical deformation should be evident.
Storage Temperature (Dry Heat)	Samples must be put into +75°C chamber for 72 hours and samples shall be powered during test. (Refer to IEC 68-2-1 Method Ba)	<ol style="list-style-type: none"> The value of return loss must be within product specifications after this test. No physical deformation should be evident.
Operating Temperature (Cold)	Samples must be put into -20°C chamber for 2 hours and samples shall be powered during test. (Refer to IEC 68-2-1 Method Aa)	<ol style="list-style-type: none"> The value of return loss must met specification during test/after test No mechanical defects after test.
Operating Temperature (Dry Heat)	Samples must be put into +65°C chamber for 72 hours and samples shall be powered during test. (Refer to IEC 68-2-1 Method Ba)	<ol style="list-style-type: none"> The value of return loss must met specification during test/after test no mechanical defects after test.

6.0 Antenna Packaging



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