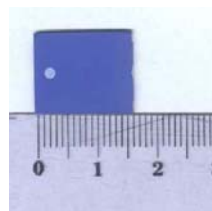


Product Specification¹ (Preliminary)

Working Frequency	850~950MHz
Gain	1.5 dBi Max
VSWR	2 max
Polarization	Linear
Azimuth	Omni-directional
Impedance	50Ω
Operating Temperature	-55~125 °C
Termination	Ni/Sn (Environmentally-Friendly Leadless)
Resistance to soldering heat	260°C, 10 sec.



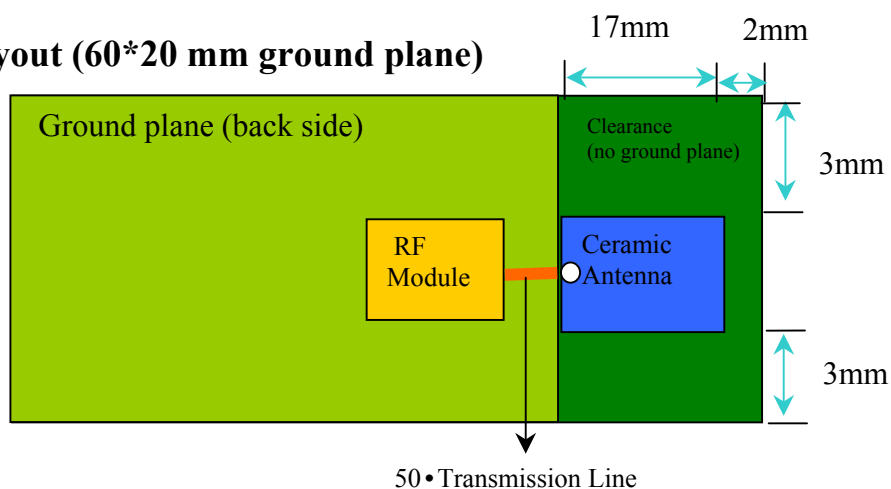
 *Special Environmental Concerns- Green Products Design: The foil making process is using environmentally friendly aqueous solvent technology. Termination is lead free and packing materials can be re-cycled*

¹ All the technical data and information contained herein are subject to change without prior notice

All the technical data and information contained herein are subject to change without prior notice									
R&D	Print date 02/04/26				Preliminary use only				
	Multilayer Ceramic Antenna (LP Mode) for 850~950MHz				4311 119 00087		Oct. 24, 01		
							Nov. 6, 01		
							Jan. 7, 02		
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APPLICATION

Suggested Layout (60*20 mm ground plane)



Solder Land Pattern for Antenna

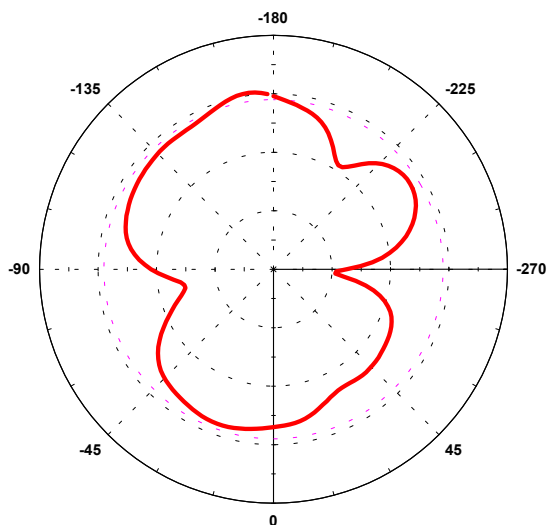
Figure	Dimensions		Remark
Technical drawing of a rectangular PCB pad. The pad is blue with a white circular hole in the center. It is surrounded by orange mounting pads. Dimensions are labeled: L (total length), W (total width), C (clearance from the hole to the edges), S1 (mounting pad thickness), S2 (mounting pad thickness), and F (feed pad thickness).	L	17.00 ± 0.10 mm	Feed pad
	W	14.40 ± 0.10 mm	
	F	1.00 ± 0.10 mm	
	C	0.90 ± 0.10 mm	
	S1	1.40 ± 0.10 mm	Mount pad
	S2	1.00 ± 0.10 mm	Mount pad

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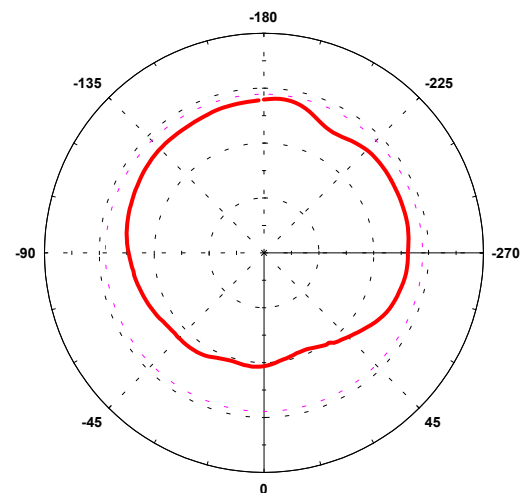
MECHANICAL DATA

Figure	Dimension	Port
	L 16.5±0.5mm	-
	W 14.0±0.5mm	-
	T 0.9±0.2mm	-
	F 0.9±0.25mm	Feed termination
	C 0.5±0.3mm	-
	S1 1.25±0.35mm	Solder termination
	S2 0.9±0.25mm	Solder termination

Radiation Pattern Polar plot



E Plane



H Plane

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Return Loss Signal

CH1 Markers

Marker	Frequency (GHz)	Return Loss (dB)
1	0.880000	-12.453
2	0.960000	-9.5810
3	1.710000	-4.9730
4	1.880000	-1.3370

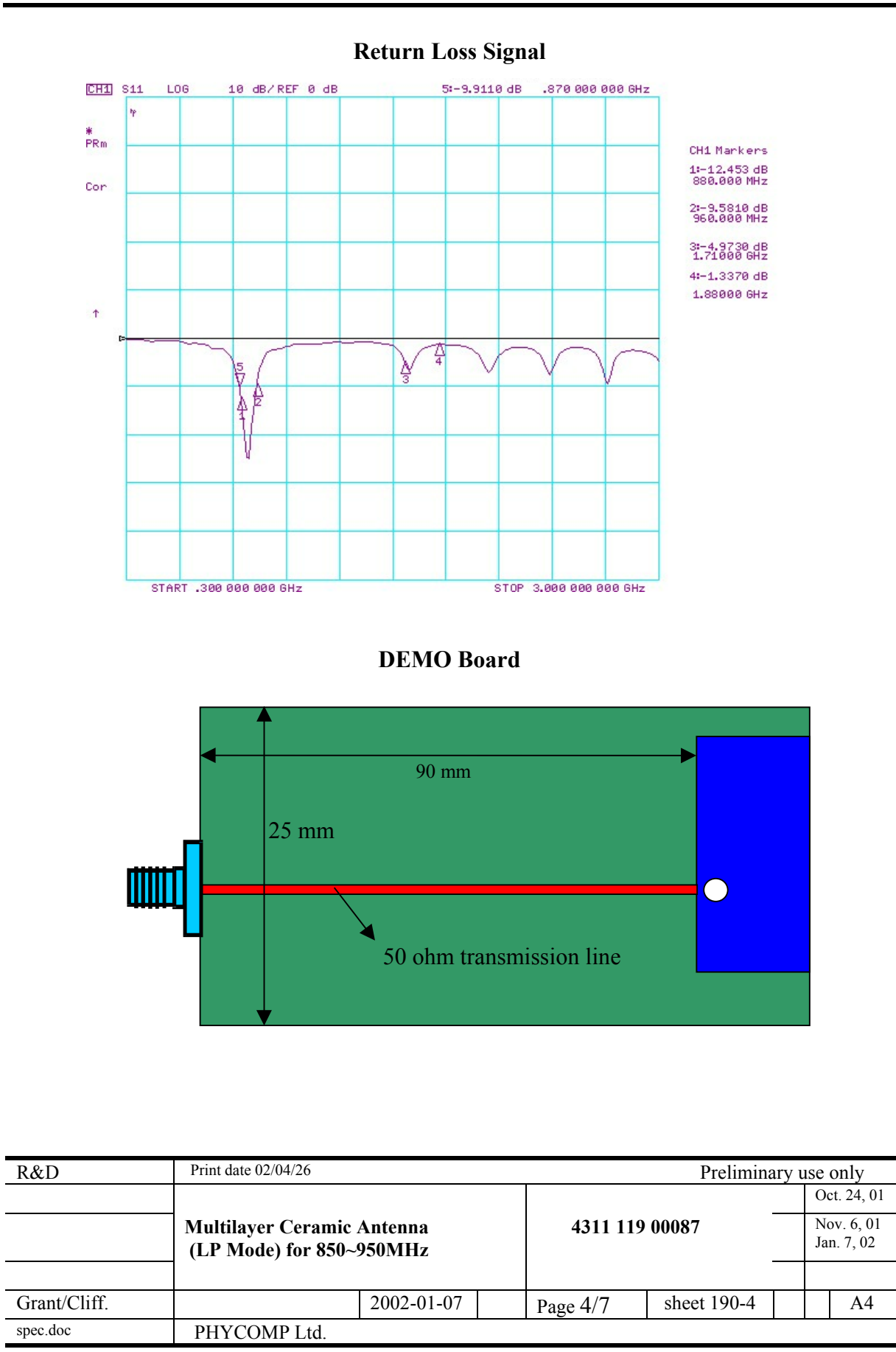
START .300 000 000 GHz STOP 3.000 000 000 GHz

DEMO Board

90 mm

25 mm

50 ohm transmission line



Return Loss Signal

CH1 Markers

Marker	Frequency (GHz)	Return Loss (dB)
1	0.880000	-12.453
2	0.960000	-9.581
3	1.710000	-4.973
4	1.880000	-1.337

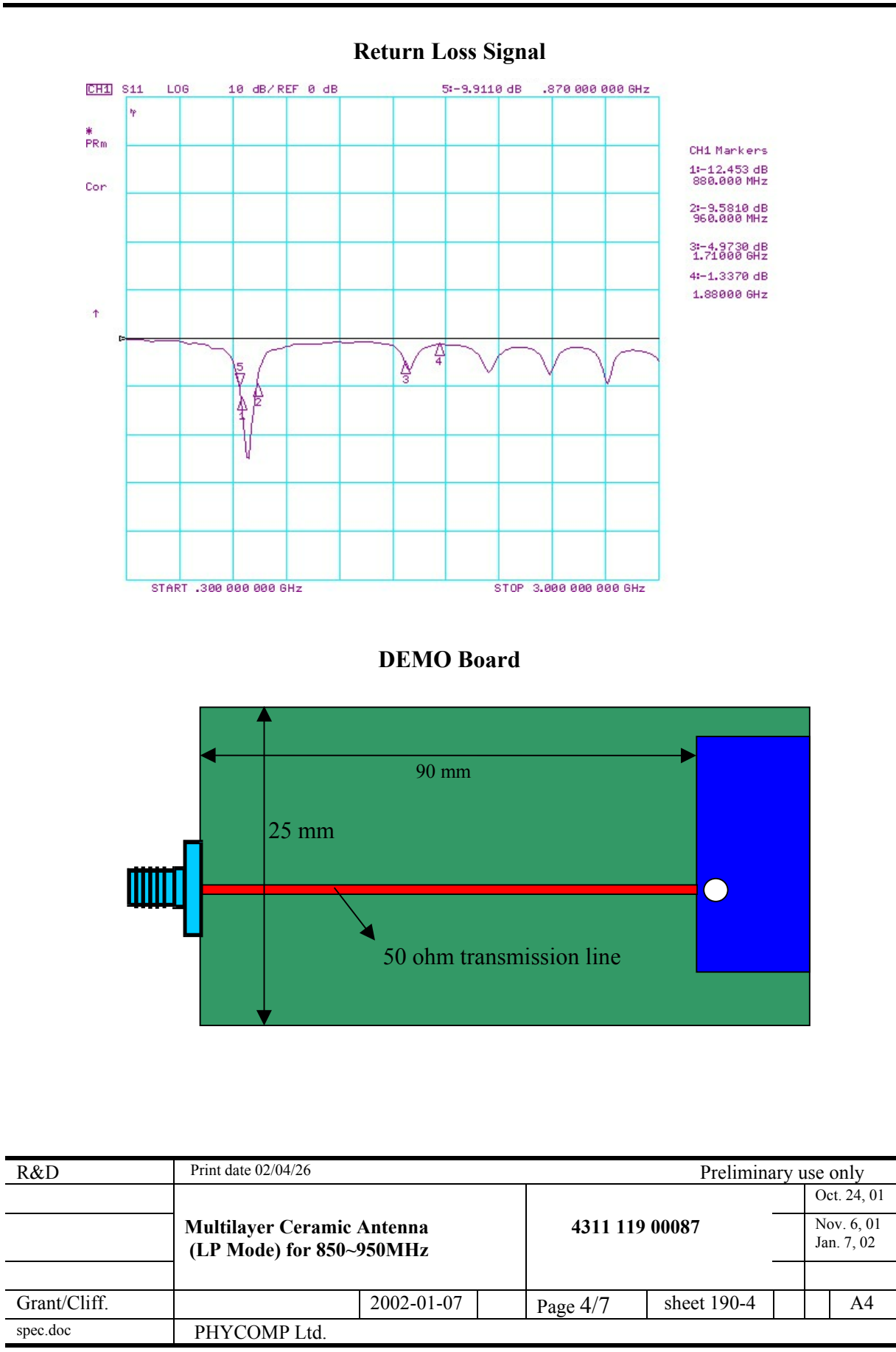
START .300 000 000 GHz STOP 3.000 000 000 GHz

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Return Loss Signal

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DEMO Board

90 mm

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RELIABILITY DATA (Reference to IEC Specification)

IEC 384-10/ CECC 32 100 CLAUSE	IEC 6006868-2 TEST METHOD	TEST	PROCEDURE	REQUIREMENTS
4.4		Mounting	The antenna can be mounted on printed-circuit boards or ceramic substrates by applying wave soldering, reflow soldering (including vapour phase soldering) or conductive adhesive	No visible damage
4.5		Visual inspection and dimension check	Any applicable method using $\times 10$ magnification	In accordance with specification (no chip off 3 mm)
4.6.1		Antenna	Central Frequency at 20 °C	Standard test board on page 4
4.8		Adhesion	A force of 5 N applied for 10 s to the line joining the terminations and in a plane parallel to the substrate	No visible damage
4.9		Bond strength of plating on end face	Mounted in accordance with CECC 32 100, paragraph 4.4	No visible damage
			Conditions: bending 0.25 mm at a rate of 1mm/s, radius jig. 340 mm, 1 mm warp on FR4 board of 90 mm length	No visible damage
4.10	Tb	Resistance to soldering heat	260 ± 5 °C for 10 ± 0.5 s in a static solder bath	The terminations shall be well tinned after recovery and Central Freq. Change $\pm 6\%$

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The antennas may be ordered by using the 12 NC ordering code. These code numbers can be determined by the following rules:

A. Working Frequency
087 = 850~950MHz

The antennas may be ordered by using the 16-digit clear text ordering code. These code numbers can be determined by the following rules:

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								Jan. 7, 02		
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