

APPROVAL SHEET

PRODUCT NAME	CUSTOMER NAME OR MODEL
AG360	
CABLE LENGTH	CUSTOMER APPROVED BY
CONNECTOR TYPE	APPROVED DATE

SPECIFICATION

Product Name: AG360

Description: Waterproof / Flexible Multi-Band Dipole Antenna



VERSION INFORMATION

VERSION	DATE	REVISION DESCRIPTION	PREPARED	CHECKED	APPROVED
1.0	3/11/15	New Issued	JMT	JF	

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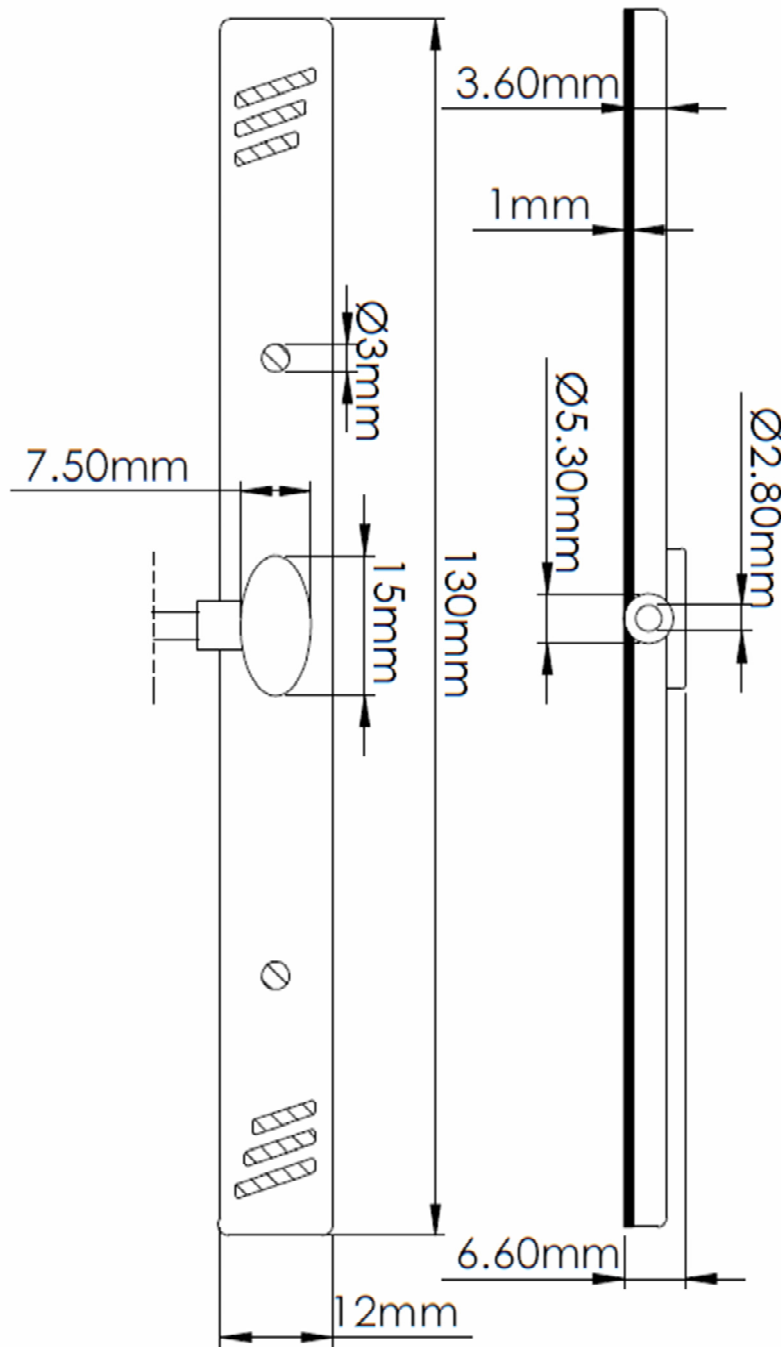
1. Electrical Characteristics		
1	Antenna model	AG360
2	Frequency range	GSM850 / GSM900 / GSM1800 / GSM1900 / UMTS 2.1GHz (3G)
3	Gain	~2dBi
4	Polarisation	Linear
5	Impedance	50Ω
6	VSWR	Less than 2:1

2. Material		
1	Antenna substrate	FR4
2	Electrode	2oz. Cu
3	Mounting	1mm double sided adhesive pad
4	RoHS compliant?	Yes

3. Cable		
1	Cable Type	RG174
2	Velocity factor	66%
3	Nominal Diameter	2.8
4	RoHS compliant?	Yes

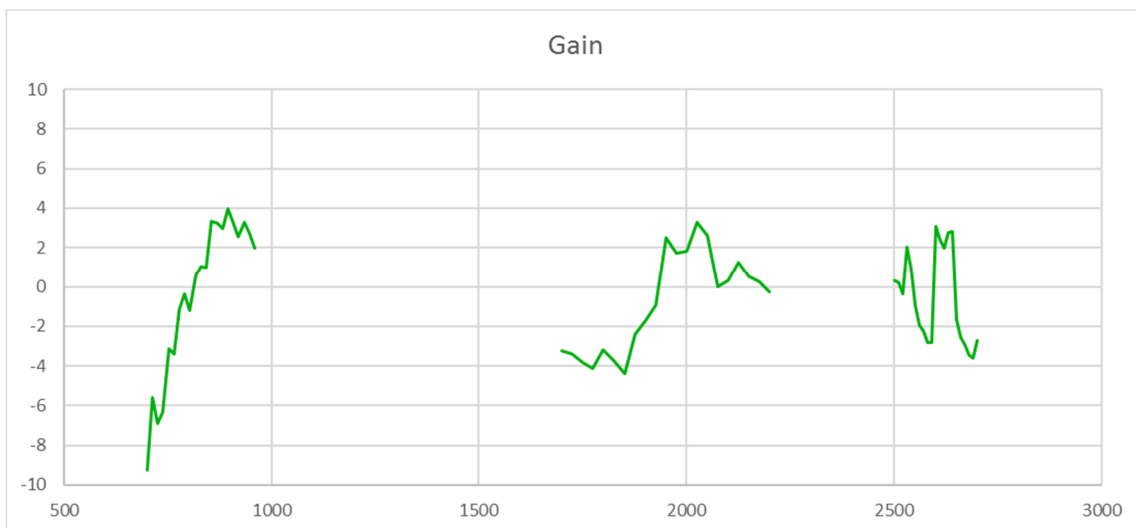
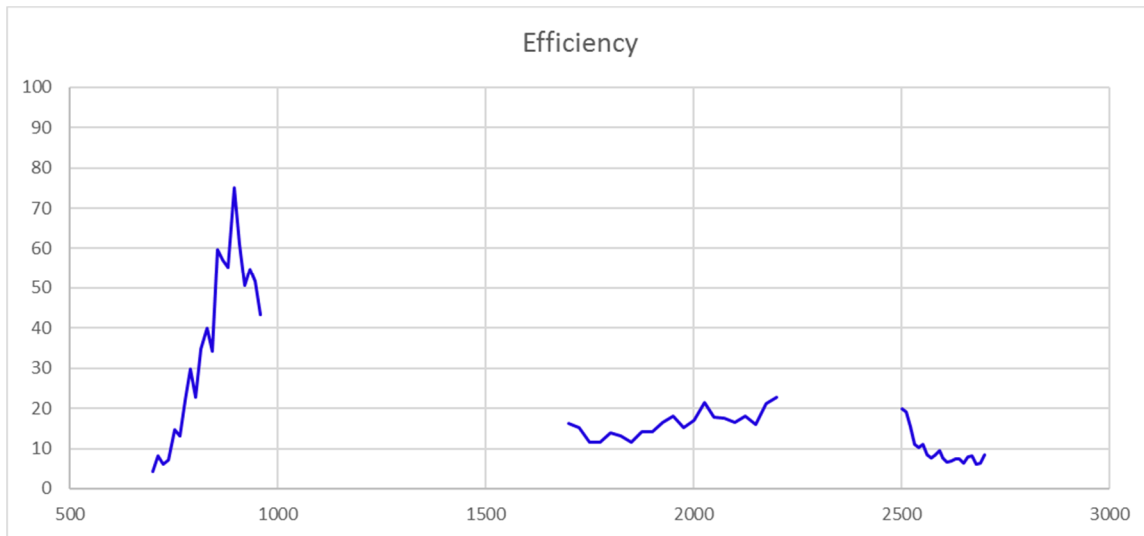
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4. Dimensions ($\pm 0.5\text{mm}$)



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5. Efficiency and gain plots

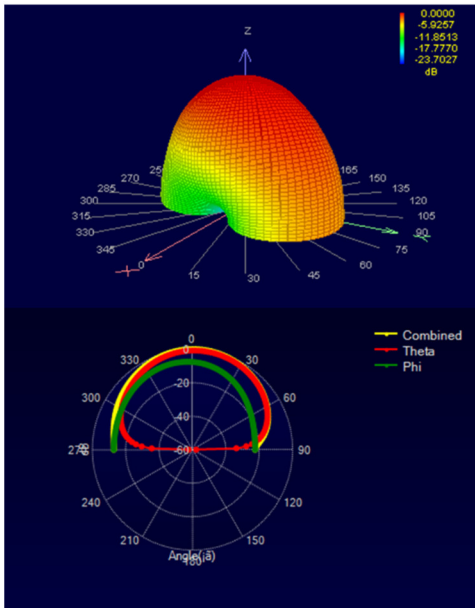


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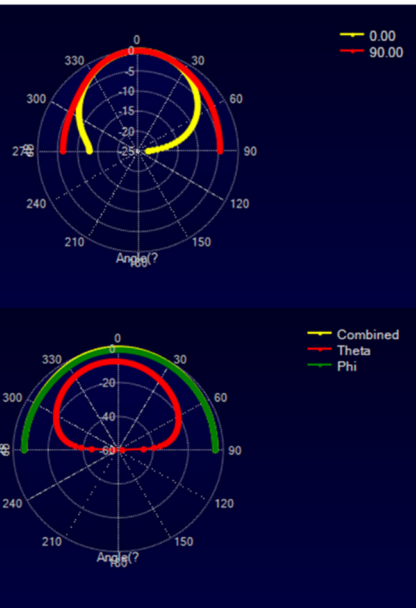
6. Typical radiation patterns

830MHz

Far-Field Linear Polarisation



Bi-section Combined Chart

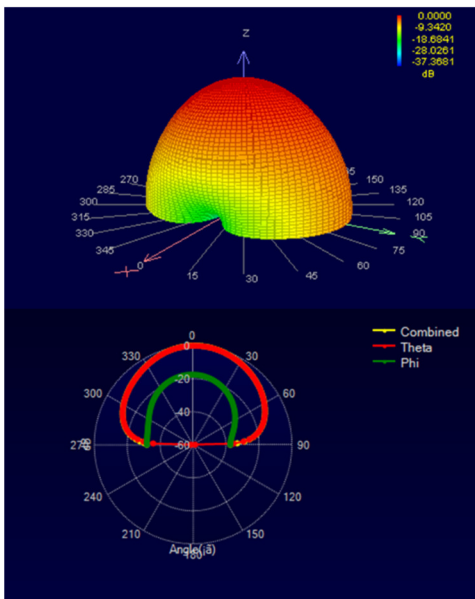


Bi-section 0.00° Amplitude Cut

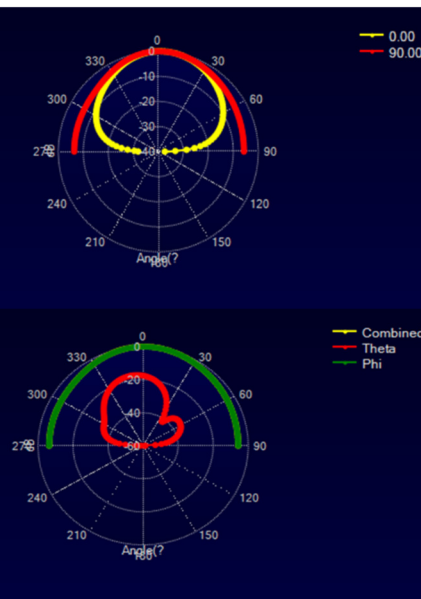
Bi-section 90.00° Amplitude Cut

921MHz

Far-Field Linear Polarisation



Bi-section Combined Chart



Bi-section 0.00° Amplitude Cut

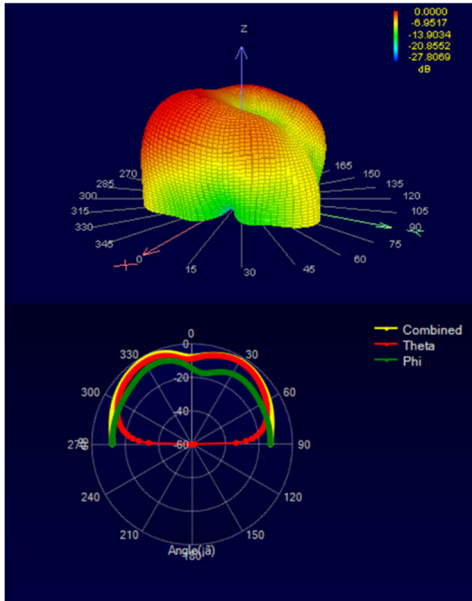
Bi-section 90.00° Amplitude Cut

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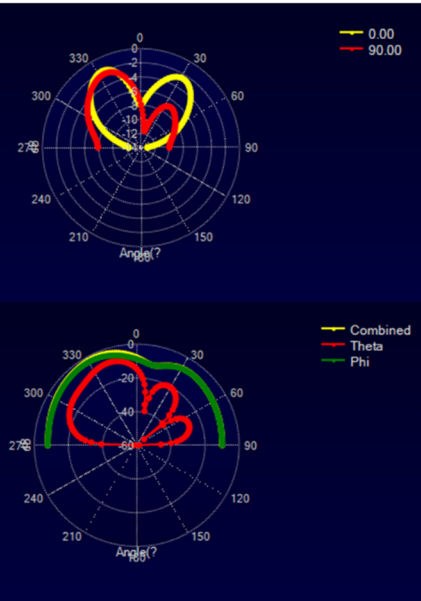
Typical radiation patterns (continued)

1700MHz

Far-Field Linear Polarisation



Bi-section Combined Chart

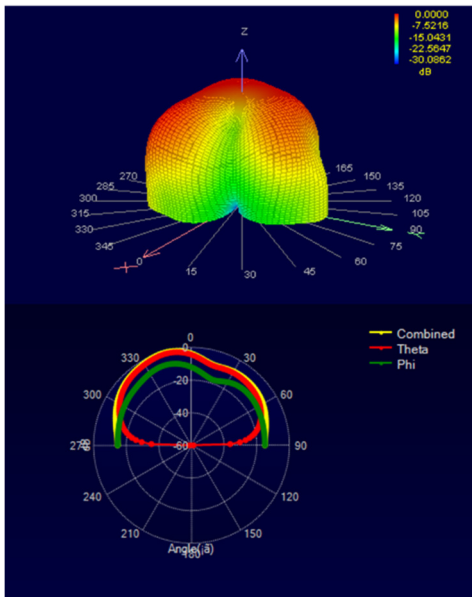


Bi-section 0.00° Amplitude Cut

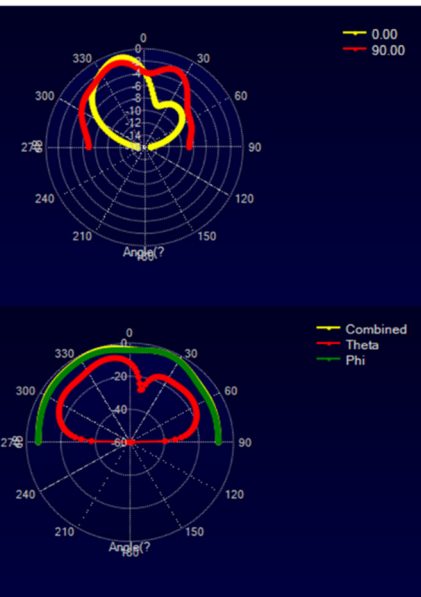
Bi-section 90.00° Amplitude Cut

1800MHz

Far-Field Linear Polarisation



Bi-section Combined Chart



Bi-section 0.00° Amplitude Cut

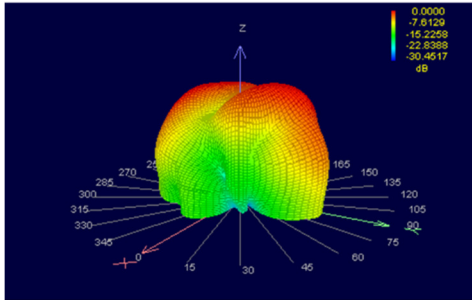
Bi-section 90.00° Amplitude Cut

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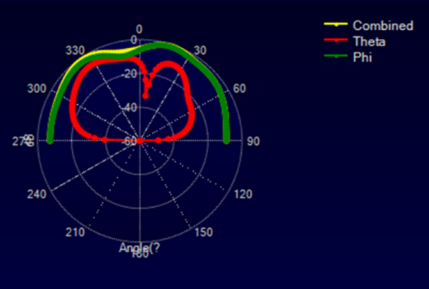
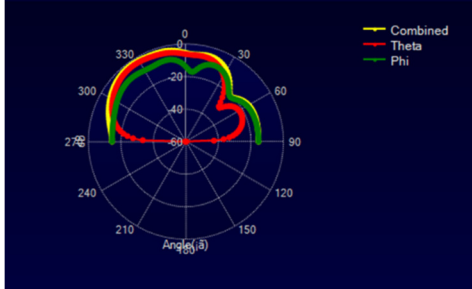
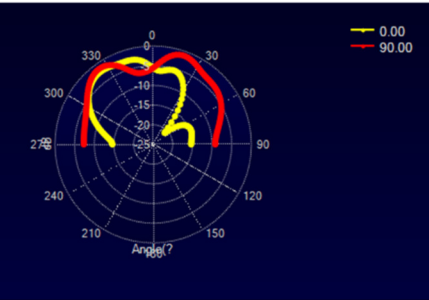
Typical radiation patterns (continued)

1900MHz

Far-Field Linear Polarisation



Bi-section Combined Chart

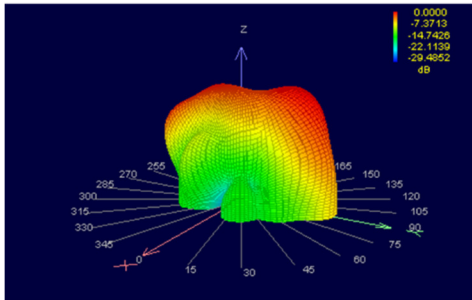


Bi-section 0.00° Amplitude Cut

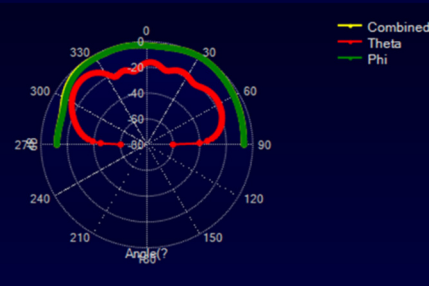
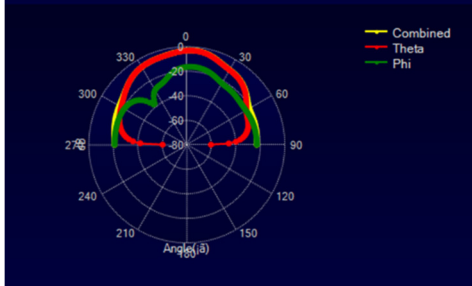
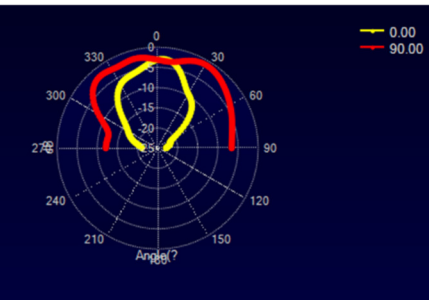
Bi-section 90.00° Amplitude Cut

2100MHz

Far-Field Linear Polarisation



Bi-section Combined Chart

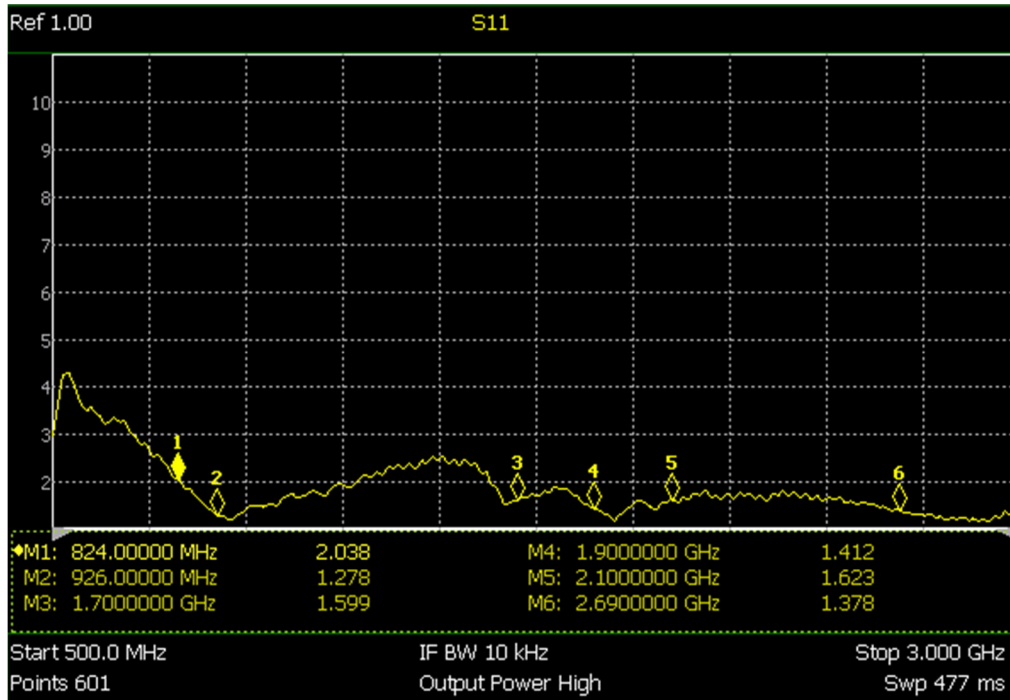


Bi-section 0.00° Amplitude Cut

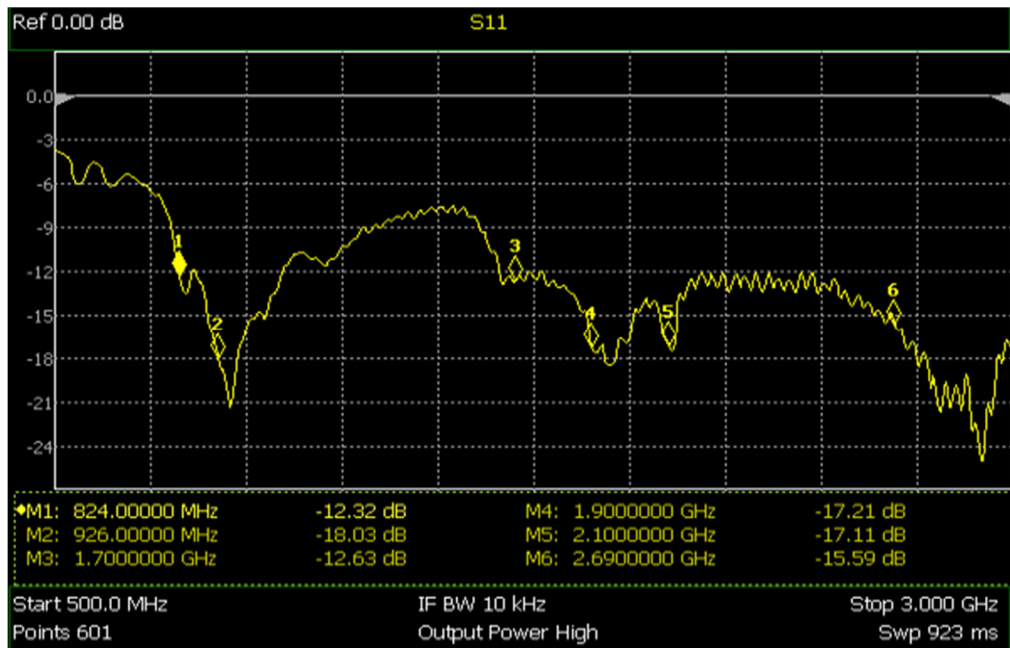
Bi-section 90.00° Amplitude Cut

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7. VSWR plot

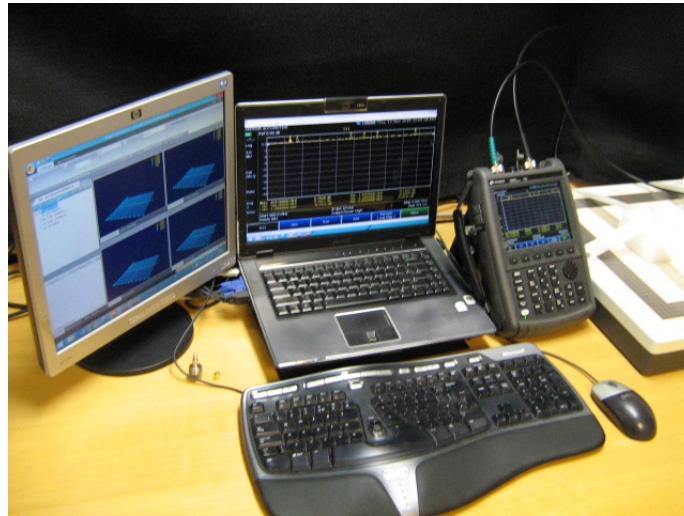


8. Return/Loss plot



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9. Test environment

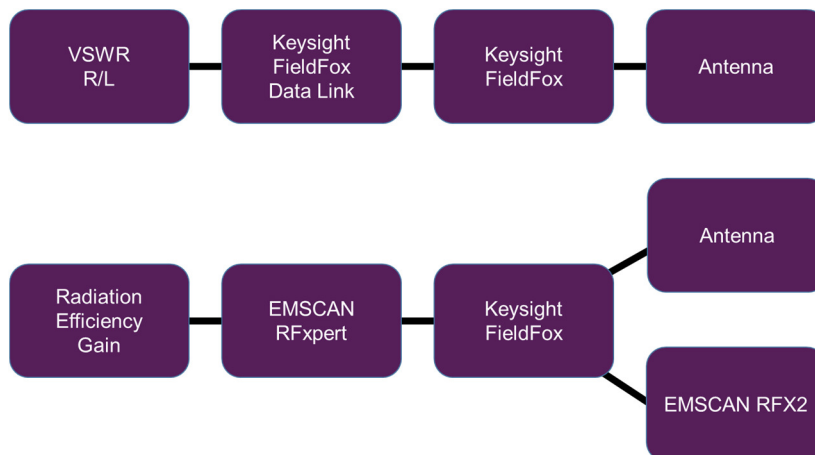


Testing hardware:

Keysight FieldFox Microwave Analyser N9915A
EMSCAN RFX2

Testing software:

EMSCAN RFXpert v4.1
Keysight FieldFox Data Link v5.06



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10. Mounting method

Step 1 – Choosing a mounting location

The optimum position to mount the antenna is on the front windscreen. However, on the rear windscreen or discretely are acceptable.

- For windscreen mounting, the recommended positions are either in the top/bottom corners or the top center, not across any demister wires.
- The antenna must be positioned at least 20mm from any metal surface.
- Suitable surfaces being glass or non-metallic.

NOTE: Best results are with a vertical mounting (cable exit from top or bottom)

Step 2 – Mounting

- The position must be completely cleaned and moisture free by using the enclosed sachet surface cleaner.
- Remove one side of the adhesive pad and firmly press onto the glass or non-metallic surface.

CAUTION

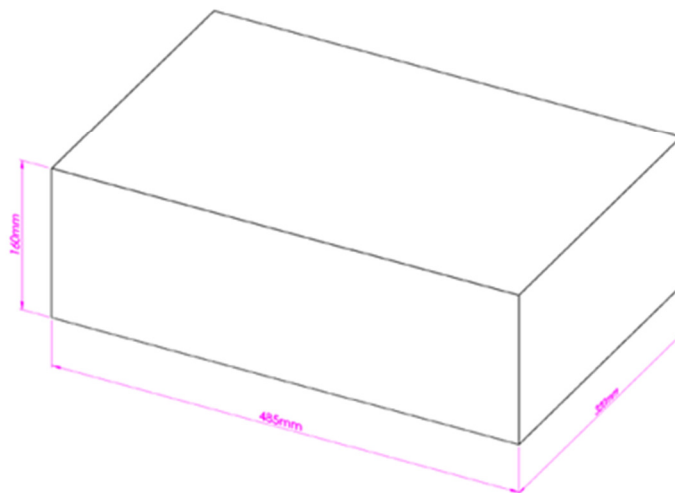
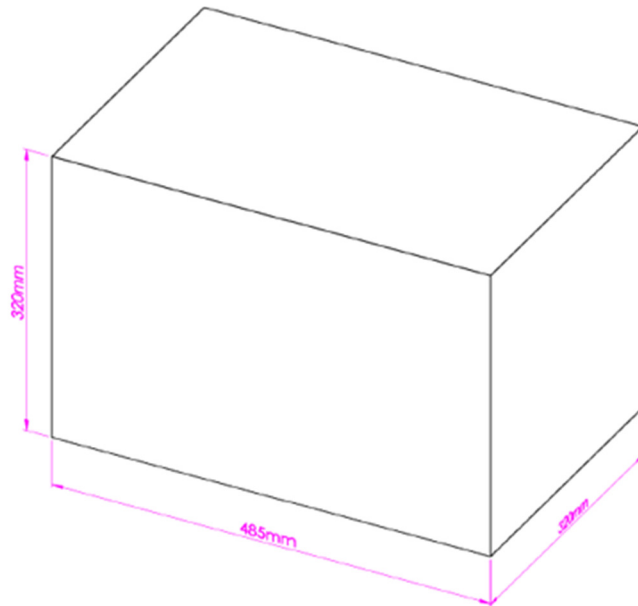
- Ensure the glass is cleaned as stated.
- Ensure no condensation is on the glass if in cold conditions.
- Keep any oil, water and your hands off the site for mounting as well as the antenna.
- Do not disturb within 24 hours of mounting to allow full adhesion to take place.

After it's use, this product must be processed as electronic scrap for proper disposal according to the prevailing waste disposal regulations of your community/district/state.

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11. Packaging

Package	Qty
Poly Bag	1
Medium Box	200
Large Box	400



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12. Environmental specifications

Temperature range: 25±3°C

Relative Humidity range: 55~75%RH

Operating Temperature range: -40°C~+85°C

Storage Temperature range: -40°C~+110°C

Moisture Proof

The device should satisfy the electrical characteristics after exposed to the temperature 40±2°C and the relative humidity 90~95% RH for 96 hours and 1~2 hours recovery time under normal condition.

Vibration Resist

The device should satisfy the electrical characteristics after applied to the vibration of 10 to 55Hz with amplitude of 1.5mm for 2 hours each in X, Y and Z directions.

Drop Shock

The device should satisfy the electrical characteristics after dropping onto the hard wooden board from the height of 30cm for 3 times each facet of the 3 dimensions of the device.

High Temperature Endurance

The device should satisfy the electrical characteristics after exposed to temperature 80±5°C for 24±2 hours and 1~2 hours recovery time under normal temperature.

Low Temperature Endurance

The device should also satisfy the electrical characteristics after exposed to the temperature -40°C±5°C for 24±2 hours and to 2 hours recovery time under normal temperature.

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13. Notes

- i. This product specification guarantees the quality of our product as a single unit. Please make sure that your product is evaluated and confirmed against your specifications when our product is mounted to your product.
- ii. We cannot warrant against failure caused by any use of our product that deviates from the intended use as described in this product specification.