

Aspen COMBO Antenna Specifications

The Combo External antenna designed for VC6096 ASPEN Project.

For easy installation the Combo antenna support two RF panel connector.

The Combo antenna Port 1 (SMA) covers all GSM and UMTS Band 824-960MHz and 1710-2170MHz.

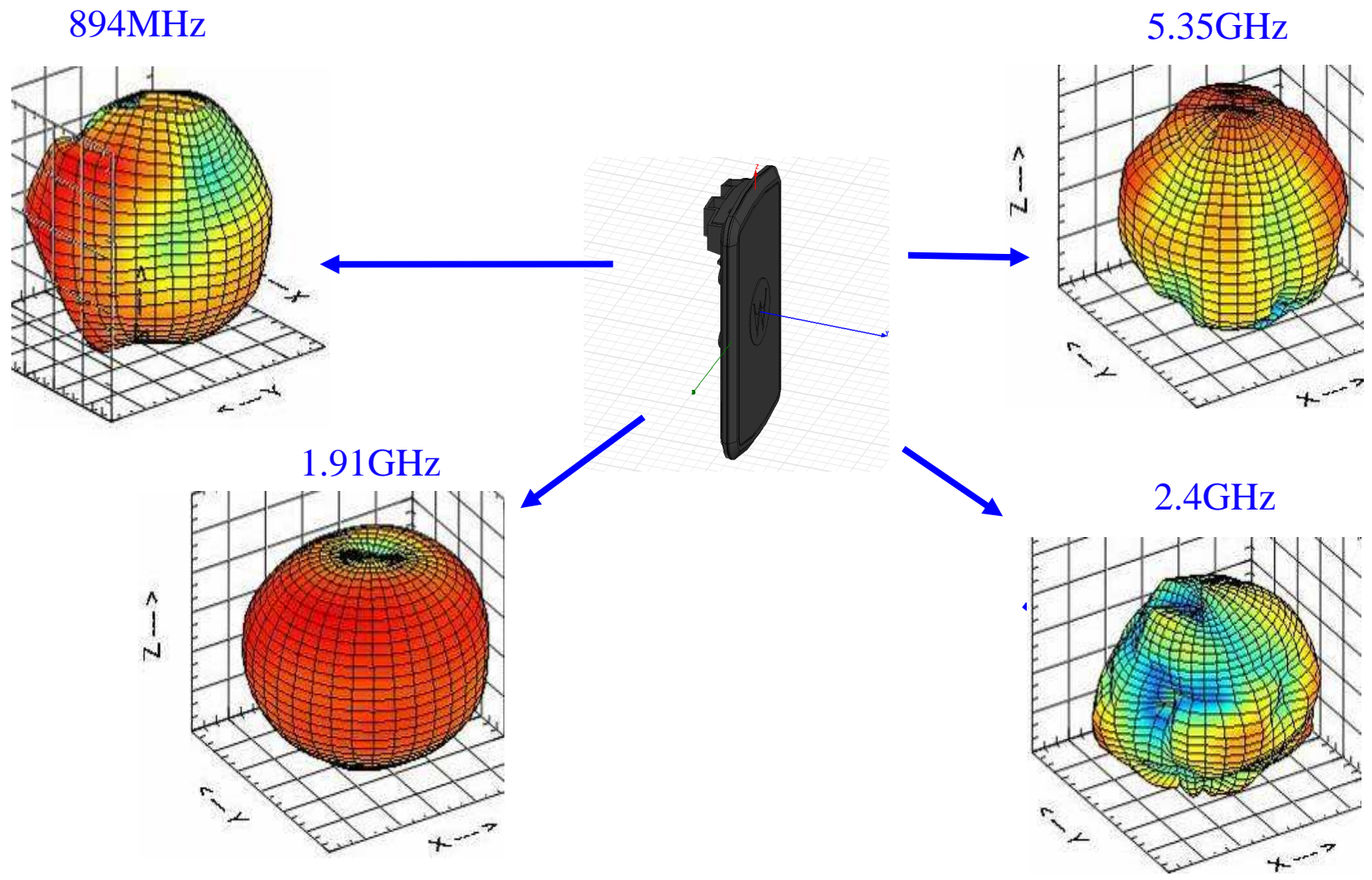
Port 2 (RRSMA) covers 802.11a/b/g, 2.4-2.5GHz and 5.15-5.825GHz. for all WLAN applications.

The Combo antenna use very low loss RF cable, The maximum length is 3 meters.

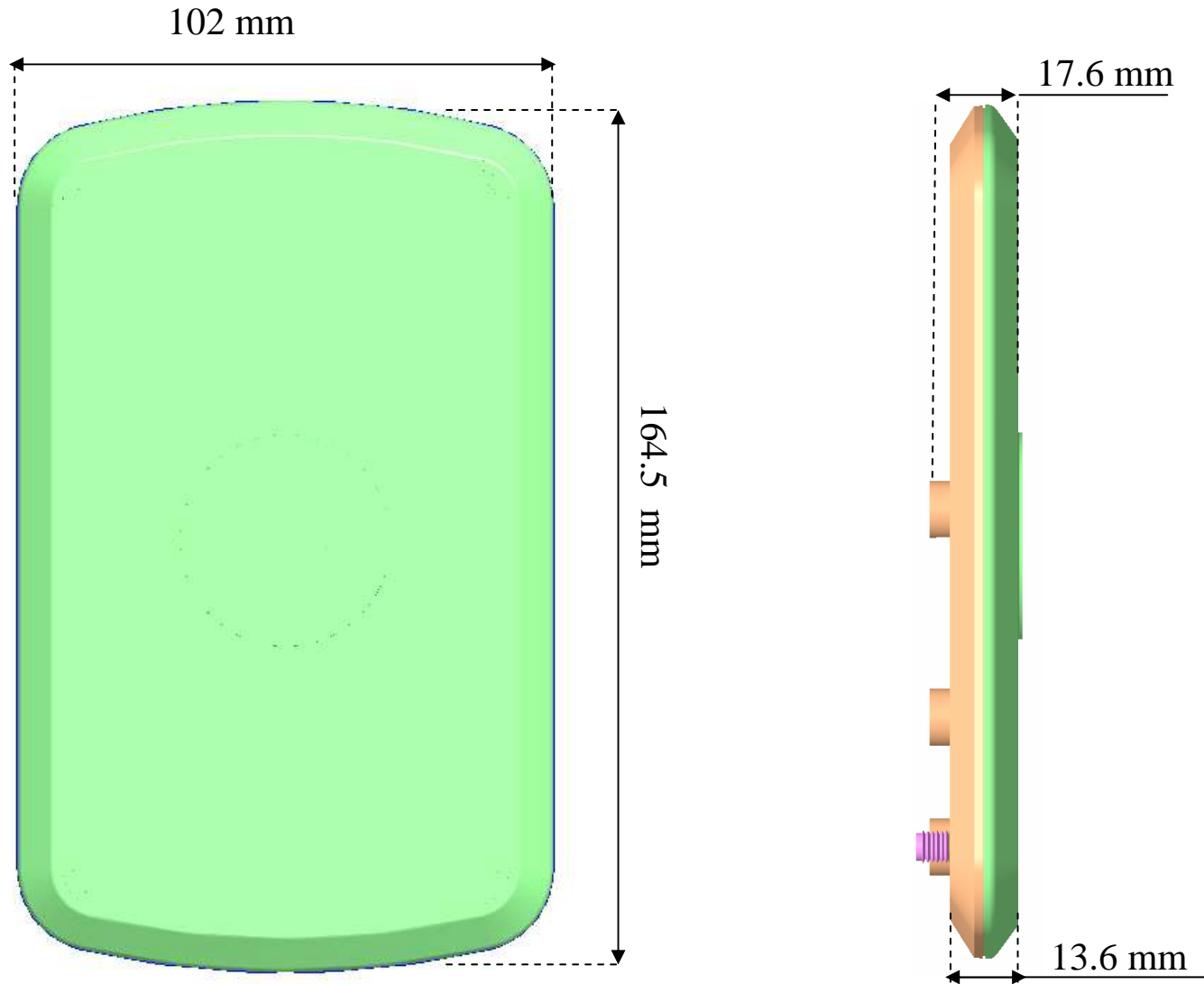
SPECIFICATION OF COMBO ANTENNA COMPRISED 3 METERS COAX CABLES

Antenna	Antenna #1			Antenna #2	
Radio Type	GSM+UMTS (Port-1)			WLAN a/b/g (Port-2)	
Radio Band	850/900	1800/1900	2100	802.11b/g	802.11a
3D max. Peak Gain (dBi)	2.7/2.4	1.5/0.5	0.5	2.3	1.5
VSWR Max. Ant Ports	2.5:1			2.5:1	
Polarization	LV & LH			LV & LH	
Radiation Pattern	Omni Directional			Omni Directional	
Min. Isolation (dB) antennas port	S21=32			S12=32	
Connector Type	SMA			R-R-SMA	

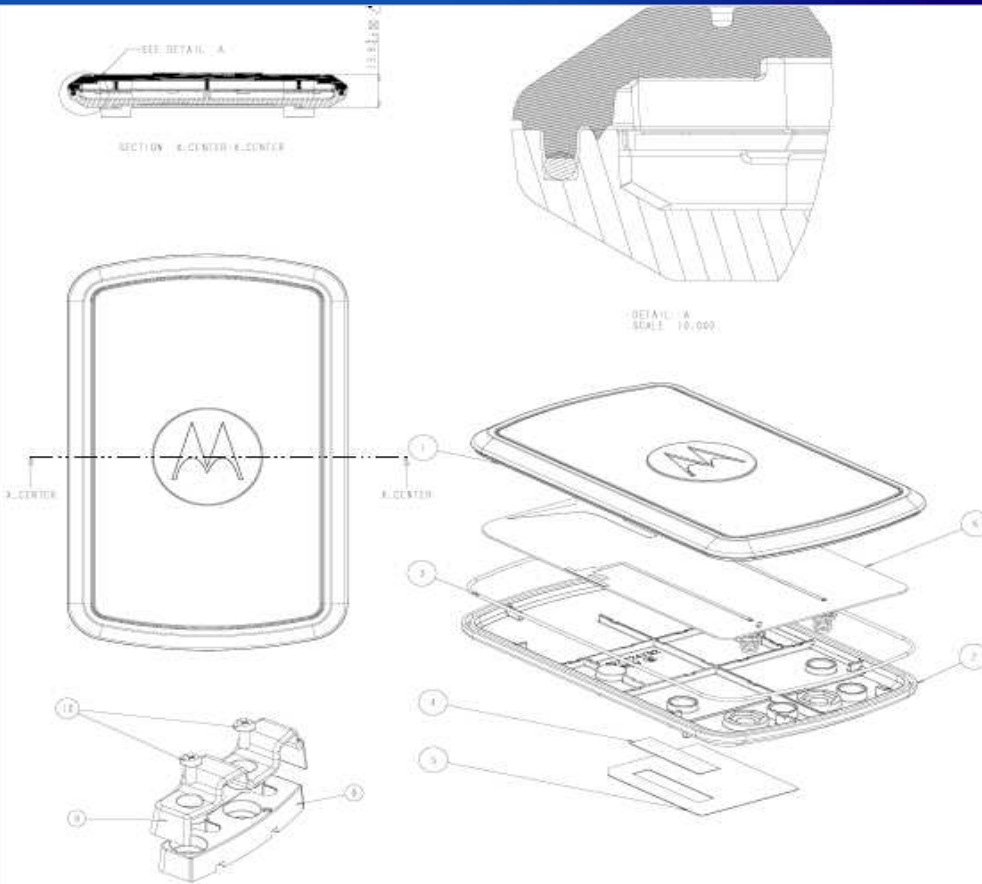
RADIATION PATTERN



Combo Antenna General Dimensions



Combo Antenna Assembly



COMBO ANTENNA ACCESSORIES

No.	MOTOROLA P/N	QTY	DESCRIPTION	MATERIAL	NOTES
19	1038558J01	1	SCREEN, W/A L/D		EST WITH PATCH
4	071831Y12	1	STRAIN RELIEF COVER, 90 DEGREE CABLES	LEKAS EKL 9335	
8	078952V53	1	STRAIN RELIEF, 90 DEGREE CABLES	LEKAS EKL 9335	
6	047100K01	1	PCS 3300, COMBO ANTENNA	ROGERS BOARD	
3	047181Y18	1	LABEL REGULATION, COMBO ANTENNA	LABEL ASST	
2	047181Y77	1	LABEL, SERIAL	LABEL ASST	
3	002142P59	1	REAR WAFER	BTI COMB. RUBBER	
2	140120Y52	1	BACK HOUSING, COMBO ANTENNA	LEKAS LKL 9335	
1	140120Y31	1	FRONT HOUSING, COMBO ANTENNA	LEKAS LKL 9335	

BOM TABLE

1.0 INTRODUCTION

2.0 APPLICABLE DOCUMENTS:

2.1 MOTOROLA QUALIFICATION PROCEDURE

2.2 MOTOROLA WINDOW MATERIAL QUALITY CONTROL

2.3 MOTOROLA PACKAGING RULES FOR WINDOWS

2.4 MOTOROLA MARKING STANDARD

2.5 DIMENSIONING AND TOLERANCING FOR MIPDS (MIP)

2.6 ART. ARTICLE APPROVAL PROCEDURE ASYM 0-1230

2.7 MOTOROLA RECYCLE REMARK

2.8 REF. 8 - ART. 6 - SECT. 7 MOTOROLA CONTROLLED AND REPORTABLE MATERIALS DISCLOSURE

2.9 MOTOROLA DECORATED SURFACE RELIABILITY REQUIREMENT

3.0 REQUIREMENTS:

3.1 GENERAL:

3.1.1 PARTS SHALL BE CLEAN AND FREE OF ALL FOREIGN MATTER

3.1.2 DIMENSIONING AND TOLERANCING PER ANSI Y14.5

3.1.3 DIMENSIONS MARKED (E) ARE CRITICAL CHARACTERISTICS AND REQUIRE S.P.C. REPORT PER MOTOROLA SPEC. 14M022474

3.1.4 PACKAGING FOR SHIPMENT PER 14M022474

3.1.5 VENDOR WILL PROVIDE FOR: (A) ARTICLE INSPECTION

3.1.5.1 3 IDENTIFIED ITEMS

3.1.5.2 MATERIALS LOG

3.1.5.3 100% DIMENSION INSPECTION REPORT INCLUDING \bar{C}_p AND C_{pk} CALCULATION FOR (X) DIMENSIONS

3.2 MATERIALS:

3.2.1 COMPONENTS MATERIAL - SEE TABLE

3.2.2 SAMPLE PARTS SHALL BE SUBMITTED TO MOTOROLA FOR APPROVAL BEFORE PROCEEDING WITH PRODUCTION RUN

3.3 MECHANICAL (UNLESS OTHERWISE SPECIFIED):

3.3.1 MARKING PER 12020980

4.0 VENDOR QUALITY ASSURANCE PROVISIONS: PER 12M0207470 AND 12M0222482

5.0 EXCEPTIONS: NO CHANGE SHALL BE ALLOWED ON PRODUCTION MATERIAL, REGARDLESS OF WHETHER SUCH CHANGE AFFECTS REQUIREMENTS SPECIFIED, WITHOUT PRIOR EXPLICIT WRITTEN APPROVAL BY MOTOROLA PHYSICAL DESIGN AND PURCHASING DEPARTMENTS

6.0 ANTENNA MUST BE ASSEMBLED ON THE TEST FIXTURE AND TAIL LIMITS ARE:

FRONT HOUSING		REAR HOUSING		REGULATOR W/A L/D W/A WAFER	
TRIO (MM)	MAX. VARI	TRIO (MM)	MAX. VARI	TRIO (MM)	MIN. (MM)
1.0	0.1	1.0	0.1	1.0	0.1
1.5	0.1	1.5	0.1	1.5	0.1
2.0	0.1	2.0	0.1	2.0	0.1

7.0 ASSEMBLY:

7.1 ASSEMBLE SERIAL LABEL (ITEM 2) ON BACK HOUSING (ITEM 2)

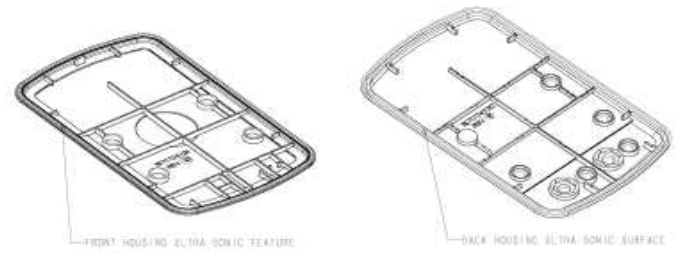
7.2 ASSEMBLE WAFER (ITEM 3) ON BACK HOUSING (ITEM 2)

7.3 ASSEMBLE CONNECTOR (ITEM 4) AND CLOSE CONNECTOR 3 NUTS BY A SET TORQUE OF 10 LB-INCH

7.4 ASSEMBLE FRONT HOUSING (ITEM 1) ON BACK HOUSING (ITEM 2)

7.5 SOLDER TOGETHER USING ULTRA-SONIC SOLDERING AROUND INDICATED SURFACES (SEE DRAWING)

7.6 ASSEMBLE REGULATOR LABEL (ITEM 5) AND SERIAL LABEL (ITEM 4) ON BACK HOUSING (ITEM 2)



DATA DATE	DESCRIPTION	CAT. NO.
01/10/01	ANTENNA, COMBO	85C87526V32

REV.	DESCRIPTION	DATE
1	ADD DIMENSION UPDATE BOM TABLE	01/10/01
2	UPDATE INSTRUCTIONS	01/10/01