

Exhibit M: Antenna Information

FCC ID: HN2SB555

COMPONENT SPECIFICATION

APPROVED SUPPLIERS

Manufacturer	Address/Telephone	805-606	Manufacturer's Part No.
Mobile Mark, Incorporated	3900-B River Road Schiller Park, IL 60176 (847) 671-6690	-001	PSTG0-2400RSCI
		-002	PSTG0-900/1900SCI
		-003	PSTG0-925/1800SCI
		-004	PSTG0-1900SCI

- 1.0 Scope:** This specification describes the requirements for a family of dual band, stubby portable wide area network antennas with SMA plug mounting as follows:

<u>Intermec P/N</u>	<u>Antenna Type</u>	<u>Nominal Frequency</u>	<u>Color Dot</u>
-001	802.11b	2400 MHz	green
-002	CDMA	900/1900 MHz	red
-003	GSM/GPRS	925/1800 MHz	blue
-004	CDMA	1900 MHz	white

- 2.0 **Quality Assurance:** Intermec Receiving Inspection reserves the right to use AQL sampling techniques when inspecting a lot.
- 3.0 **Packaging:** All antennas will be packaged in containers capable of protecting them from damage in common carrier shipping and handling.
- 4.0 **Markings:** Individual antennas will be color coded with a color dot per Paragraph 1.0 on the antenna end opposite the connector. Each container will be labeled or otherwise marked with the manufacturer's name or trademark, and the part number designation. Major shipping cartons will be marked with the Intermec part number.

REVISION HISTORY

Rev.	File No.	Description of Change	Date	Approved
A	C3233	Release	4/22/02	D V
B	C3332	¶1.0 Blue was yellow; ¶5.2 Was TBS; ¶5.3 Was TBS; ¶5.4 Was TBS; ¶6.2 Was fractional wave; ¶6.3 -30° to +60°C was TBS; ¶8.0 Blue was yellow; ¶9.0 Was TBS	6/10/02	J S
C	C3463	Add -004 part; Revise ¶1.0, ¶5.2, ¶5.3 & ¶6.2; ¶7.2 Was not specified; ¶8.0 Add length & -004 status; ¶9.0 Redrawn, L was 2.23, add 0.34, add 0.19 & add 0.09 (typ)	10/31/02	J S
D	C3534	¶5.2 3dBi & 4dBi were TBS; ¶5.3 3.0:1 was TBS; ¶8.0 1.10 was .90. & add white	12/16/02	J S

[illegible]

5.0 Antenna Specifications:

5.1 Frequency: See parts tabulation below

5.2 Antenna Gain: -001 P/N - 1.3 dBi

-002 P/N - 3 dBi

-003 P/N - 3 dBi

-004 P/N - 4 dBi

5.3 VSWR: -001 P/N - 2.0:1 upper band

-002 P/N - 3.0:1 lower band/3.0:1 upper band

-003 P/N - 3.8:1 lower band/2.5:1 upper band

-004 P/N - 3.0:1 upper band

5.4 Power: 1 Watt

5.5 Radiation: Omnidirectional

5.6 Polarization: Linear

5.7 Nominal Impedance: 50 Ohms

6.0 Mechanical Ratings:

6.1 Mounting Means: SMA plug mount (mounts to SMA receptacle, per tabulation below)

6.2 Element Length: -001 P/N - $1/2\lambda$

-002 P/N - $1/4\lambda$

-003 P/N - $1/4\lambda$

-004 P/N - $1/4\lambda$

6.3 Ambient Operating Temperature: -30°C to +60°C

7.0 Materials:

7.1 Antenna Material: Not specified

7.2 Sheath Material: 50/50 blend of K-Resin and Santoprene 7311

8.0 Parts Tabulation:

Part Number	Lower Band Freq. (MHz)	Upper Band Freq. (MHz)	Interconnection	Length L (inch)	Color Dot
-001	none	2400 to 2483.5	rev. sex SMA plug	2.23	green
-002	824 to 894	1850 to 1990	std. sex SMA plug	2.23	red
-003	890 to 960	1700 to 1880	std. sex SMA plug	2.23	blue
-004	none	1850 to 1990	std. sex SMA plug	1.10	white

9.0 Outline Drawing (inches):

