COMPONENT SPECIFICATION

APPROVED SUPPLIERS

Manufacturer	Address/Telephone	805-616	Manufacturer's Part No.
AeroAntenna Technology Inc.	20732 Lassen Street Chatsworth, CA 91311 (818) 993-3842	-001 -002	AT900-4W-MMCXMR-003-00-00-NM Not Available
Radiall/Larsen Antenna Technologies	3611 N.E. 112th Avenue Vancouver, WA 98682 (360) 944-7551	-001 -002	Not Available ROS-915

1.0 Scope: This specification describes the requirements for a 0 dB gain, circular polarized, ceramic patch antenna as follows:

Part No.	Application	Frequency	Gain	Cable Length	Connector
-001	RFID Tag Reader	915 MHz	0 dB	2.5 in. (ref.)	R/A MMCX plug
-002	RFID Tag Reader	915 MHz	2.5dB	2.5 in. (ref.)	R/A MMCX plug

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: 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	C3857	Release	8/06/03	J S
B	C4022	Add -002 part, Revise ¶1.0, ¶5.2, ¶5.3, ¶5.5 thru ¶5.8, ¶5.10, ¶6.1, ¶6.4, ¶6.6 & ¶7.0	1/16/04	J S
C	C4117	¶5.5 & ¶5.6 120 degrees typ. was 102 +/-4 degrees	5/27/04	J S

REVISION LEVEL	C	C	A																					
SHEET NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

COMPONENT ENGR. J. McROBERTS	DATE 7/14/03	**Intermec Technologies Corp.**	TITLE CERAMIC PATCH ANTENNA, 915 MHz
COGNIZANT ENGR. B. McDERMOTT	DATE - - -	550 Second Street S.E. Cedar Rapids, IA 52401	DRAWING NO. 805-616-0XX
APPROVED K. VORHIES by JS	DATE 8/06/03	Telephone No. (319) 369-3100 Facsimile No. (319) 369-3453	Sheet 1 Of 3

5.0 Antenna Specifications:

5.1 Resonant Frequency: 915 MHz

5.2 Antenna Gain: -001 part, 0 dB
-002 part, 2.5 dBic ±1 dB (in horizontal plane)

5.3 Axial Ratio: -001 part, less than or equal to 10dB (@915 MHz ±2 MHz)
-002 part, less than 4dB (@915 MHz)
-002 part, less than 13dB (@915 MHz ±10 MHz)

5.4 Front to Back Ratio: Not specified

5.5 3dB Beam Width, Horizontal: -001 part, not specified
-002 part, 120° typical

5.6 3dB Beam Width, Vertical: -001 part, not specified
-002 part, 120° typical

5.7 Return Loss @Resonant Frequency: -001 part, less than or equal to -15dB
-002, not specified

5.8 Resonance Bandwidth: -001 part, 915 MHz ±5 MHz
-002 part, 915 MHz ±10 MHz

5.9 Return Loss Across Resonance: Less than or equal to -10dB

5.10 Power Rating: -001 part, not specified
-002 part, 10 Watts

5.11 Polarization: Right hand circular

5.12 Nominal Impedance: 50 Ohms

6.0 Mechanical Ratings:

6.1 Substrate Material: -001 part, ceramic
-002 part, alumina

6.2 Pendant Cable Type: See parts tabulation

6.3 Coaxial Connector: See parts tabulation

6.4 Ambient Operating Temperature: -001 part, -40°C to +80°C
-002 part, -40°C to +85°C

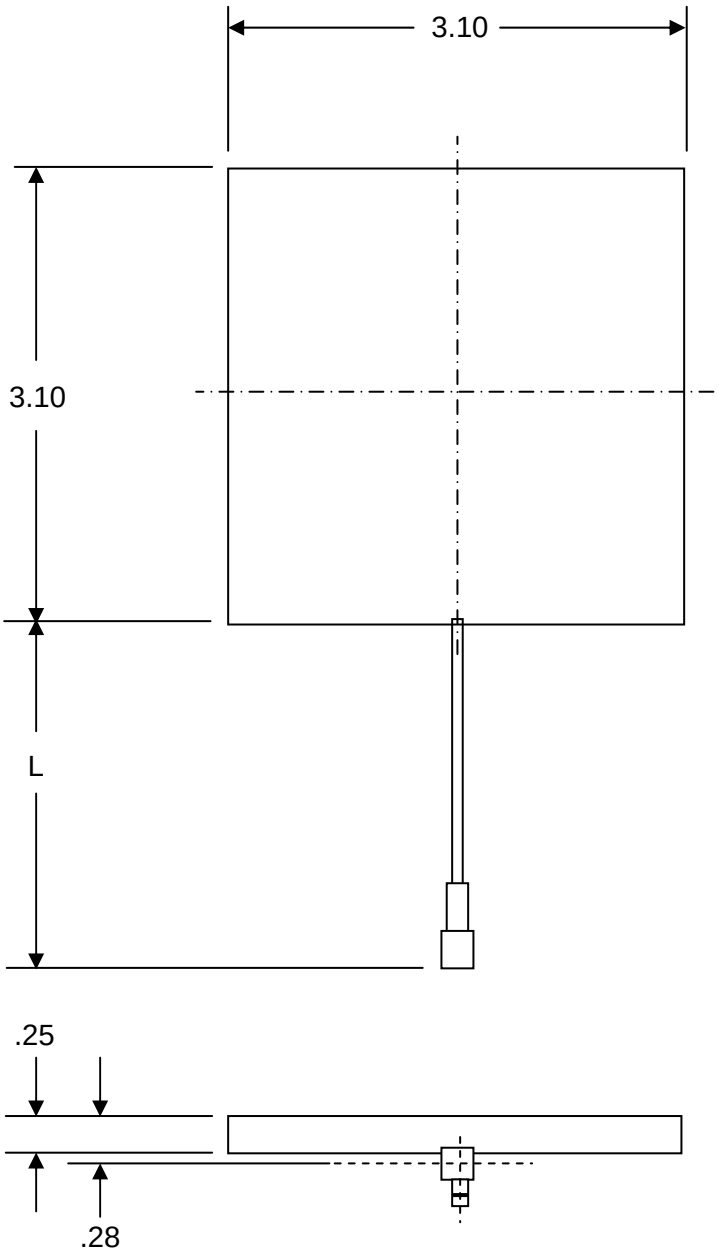
6.5 Storage Temperature: Not specified

6.6 Weight: -001 part, 4 oz. (113 grams, with 2.5 inches coax)
-002 part, 5.3 oz. (150 grams, with 2.5 inches coax & MMCX plug)

7.0 Parts Tabulation:

Part No.	Cable Type	Cable Length, L	Connector
-001	RG-178B/U	2.50 ±.20 inches	Right angle MMCX plug
-002	RG-178B/U	2.50 ±.20 inches	Right angle MMCX plug

8.0 Outline Drawing: RFID antenna, -001 & -002parts



Notes: 1. Dimensions are in inches
2. Tolerances are +/-.03 inches, unless otherwise shown
3. Length of coax assy and connector type are specified in the parts tabulation (Para. 7.0)