

Exhibit H: Antenna Information

FCC ID: HN2WN-5MP01

5 GHz antennas for the 802.11a radio

Intermec Part Number	Min Frequency (GHz)	Max Frequency (GHz)	Style	Max Gain
072759	5.25	5.35	Omni	6 dBi
072760	5.25	5.35	Omni	9 dBi
072761	5.25	5.35	Omni	3 dBi
072762	5.25	5.35	Corner Reflector	14 dBi
072664 (*)	5.15	5.35	Omni	5 dBi
072730 (*)	5.25	5.35	Omni	5 dBi

(*) These two antennas are identical with one difference. 072664 connects directly to the radio board and is unremovable. 072730 connects through a customs reverse TNC connector and is removable.

4		3		2		1			
APPROVED SOURCE(S) OF SUPPLY				REVISIONS					
SUPPLIER		PART NUMBER		REV	ECN	ZONE	DESCRIPTION	DATE	DRAWN & APPROVED
1. MOBILE MARK		ODN6-5250I		01			INITIAL DRAWING CREATION		
2.									
3.									
4.									
5.									
6.									

D

D

C

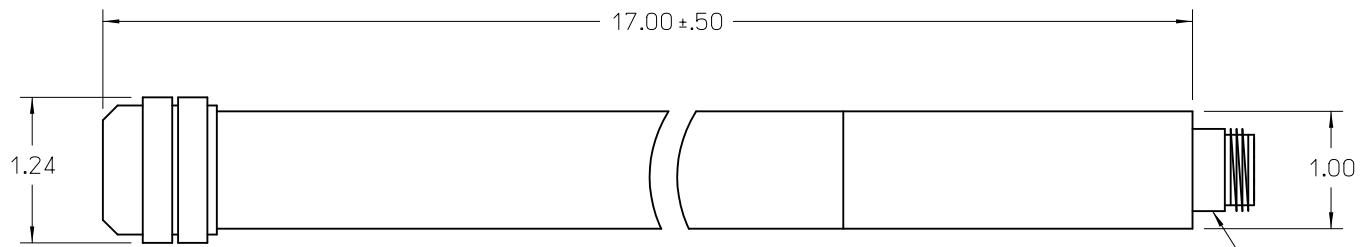
C

B

B

A

A



KINGS P/N 2224-1-9
PLASTIC CAP NOT SHOWN

NOTES: UNLESS OTHERWISE SPECIFIED


1. ANTENNA - FIBERGLASS RADOME WITH ALUMINUM FEED.
HARDWARE - 4 EACH U BOLTS
1 MOUNTING PLATE
HEX NUTS AND WASHERS
2. REMOVE ALL BURRS AND SHARP EDGES.
3. BAG PARTS AND MARK BAG WITH PART NUMBER 072759 PER SPECIFICATION 606427. DO NOT MARK DASH NUMBER.
4. CHANGES REQUIRE SAC APPROVAL.
5. SPECIFICATIONS:
FREQUENCY: 5.15 - 5.35 GHz
IMPEDANCE: 50 OHMS
GAIN: 6 DBI
WIND SURVIVAL: 100 MPH
POWER RATING (CONTINUOUS): 100 WATTS MAXIMUM.
BEAMWIDTH: 25° VERTICAL, 360° HORIZONTAL.

PRELIMINARY
SOURCE CONTROL DRAWING

-001

						REVISION	REV STATUS OF SHEETS
5	4	3	2	1		SHEET	

NOTICE
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CAD DB.REF- 072759.1.01 SYSTEM - HP-ME10		UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		APPROVALS		DATE	 6001 36TH AVENUE WEST EVERETT, WA 98203 TITLE ANTENNA, 5 GHZ, OMNI, 6 DBI SIZE C CAGE CODE 33825 DRAWING NUMBER 072759 SCALE NONE USED ON WA21 SHEET 1 OF 1	
DRAWN	R.ZIGLER	5-17-02						
CHECKED								
RESP ENG								
QA								
MFG ENG								
SAC								
CE/ID								

4

3

2

1

APPROVED SOURCE(S) OF SUPPLY

SUPPLIER	PART NUMBER
1. MOBILE MARK	ODN9-5250I
2.	
3.	
4.	
5.	
6.	

REVISIONS

REV	ECN	ZONE	DESCRIPTION	DATE	DRAWN & APPROVED
01			INITIAL DRAWING CREATION		

D

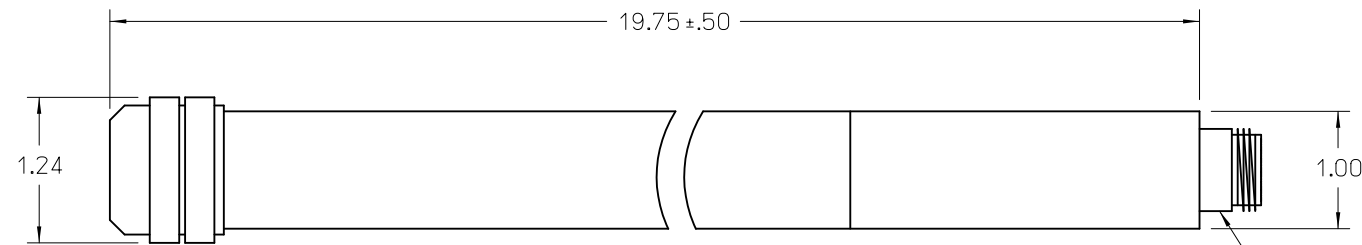
D

C

C

B

B



KINGS P/N 2224-1-9
 PLASTIC CAP NOT SHOWN

NOTES: UNLESS OTHERWISE SPECIFIED

- ANTENNA - FIBERGLASS RADOME WITH ALUMINUM FEED.
HARDWARE - 4 EACH U BOLTS
1 MOUNTING PLATE
HEX NUTS AND WASHERS
- REMOVE ALL BURRS AND SHARP EDGES.
- BAG PARTS AND MARK BAG WITH PART NUMBER 072760 PER SPECIFICATION 606427. DO NOT MARK DASH NUMBER.
- CHANGES REQUIRE SAC APPROVAL.
- SPECIFICATIONS:
FREQUENCY: 5.15 - 5.35 GHz
IMPEDANCE: 50 OHMS
GAIN: 9 DBI
WIND SURVIVAL: 100 MPH
POWER RATING (CONTINUOUS): 100 WATTS MAXIMUM.
BEAMWIDTH: 14° VERTICAL, 360° HORIZONTAL.

PRELIMINARY
 SOURCE CONTROL DRAWING

A

A

-001

REVISION					REV STATUS
5	4	3	2	1	SHEET
					OF SHEETS

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CAD DB.REF- 072760.1.01
 SYSTEM - HP-ME10

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

.X ±
 .XX ± .10
 .XXX ±
 ANGLES ±

APPROVALS	DATE
DRAWN R.ZIGLER	5-17-02
CHECKED	
RESP ENG	
QA	
MFG ENG	
SAC	
CE/ID	

Intermec 6001 36TH AVENUE WEST
 Technologies Corporation EVERETT, WA 98203

TITLE ANTENNA, 5 GHZ, OMNI,
 9 DBI

SIZE	CAGE CODE	DRAWING NUMBER
C	33825	072760
SCALE NONE	USED ON WA21	SHEET 1 OF 1

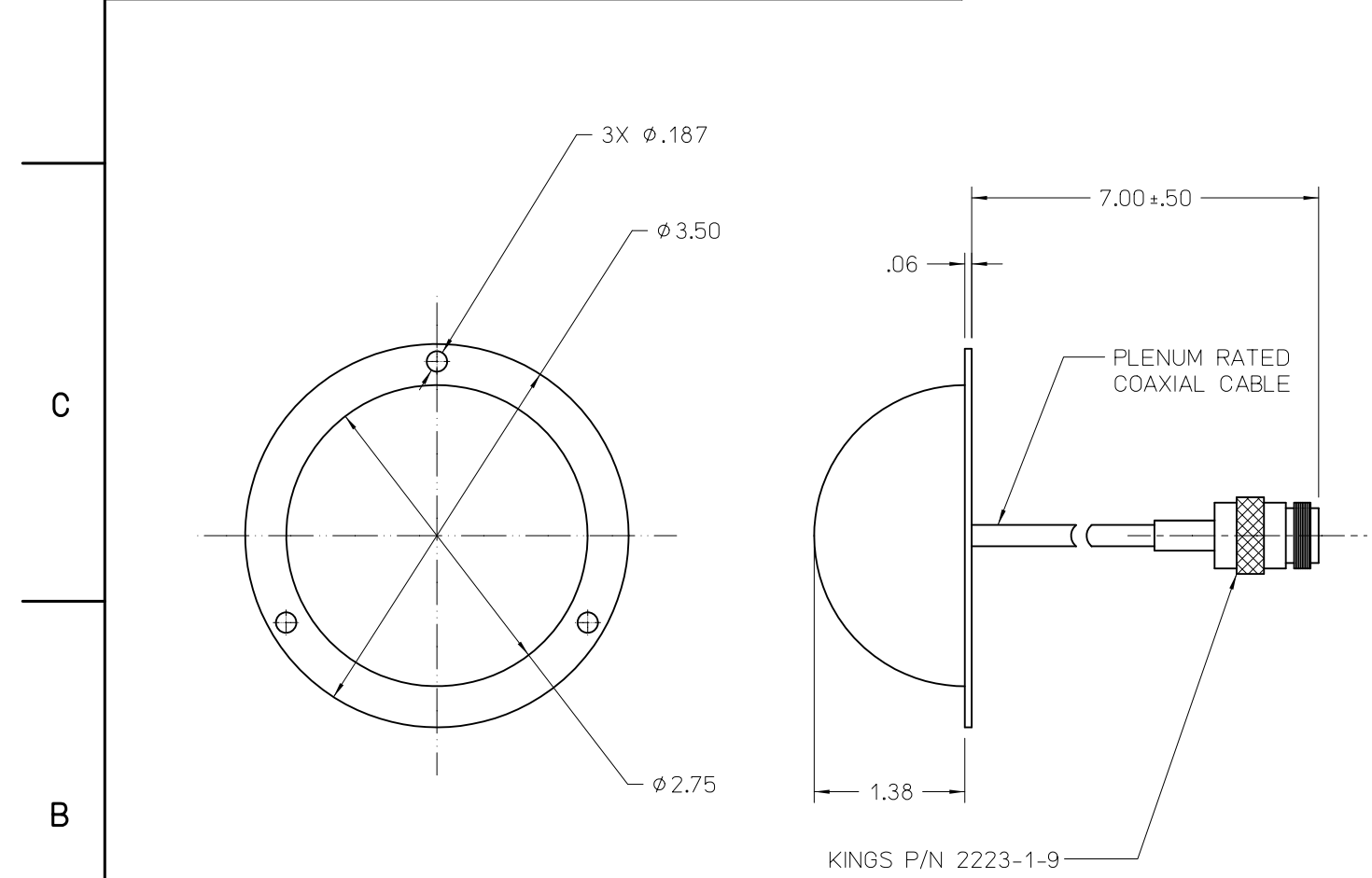
4

3

2

1

4		3		2		1			
APPROVED SOURCE(S) OF SUPPLY				REVISIONS					
SUPPLIER		PART NUMBER		REV	ECN	ZONE	DESCRIPTION	DATE	DRAWN & APPROVED
1. MOBILEMARK		CM3-5250I		01			INITIAL DRAWING CREATION		
2.									
3.									
4.									
5.									
6.									



- NOTES: UNLESS OTHERWISE SPECIFIED
- REFER TO THE MANUFACTURER'S SPECIFICATIONS FOR COMPLETE DESIGN PARAMETERS.
 - BAG PARTS AND MAK BAG WITH 072761 TO WHICH MANUFACTURED PER SPECIFICATION 606427. DO NOT MARK DASH NUMBER.
 - CHANGES REQUIRE SAC APPROVAL.
 - SPECIFICATIONS:
VSWR: 2:1 MAXIMUM.
FREQUENCY: 5.15 - 5.35 GHz
GAIN: 3 DBI
PATTERN: HEMISPHERICAL OMNI-DIRECTIONAL
 - MOUNTING KIT CONSISTS OF 3 SCREWS AND 3 WALL ANCHORS.

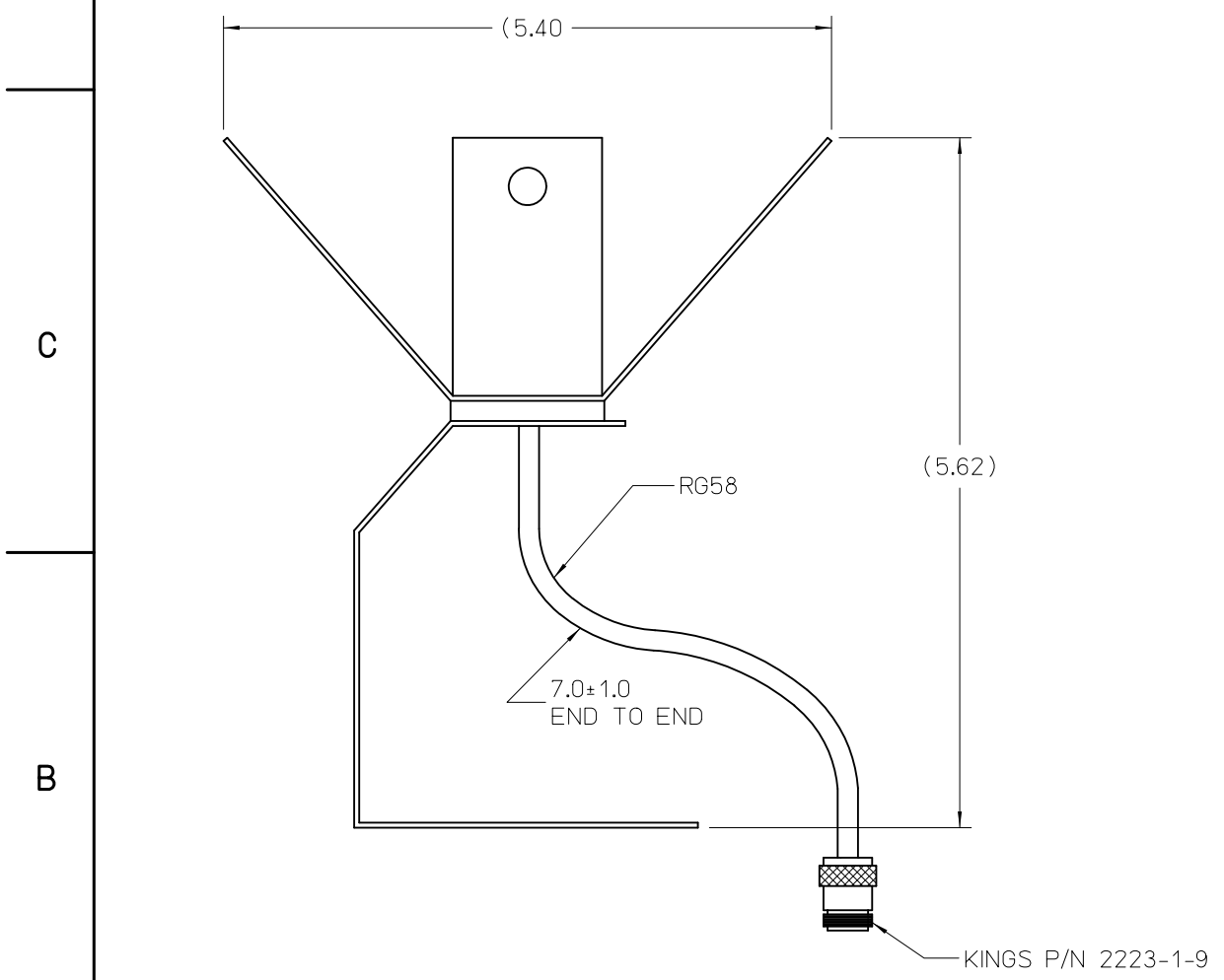
PRELIMINARY
SOURCE CONTROL DRAWING

-001											
				REVISION	REV STATUS						
				5	4	3	2	1	SHEET	OF	SHEETS
<p>NOTICE</p> <p>THIS DRAWING SHALL NOT BE DUPLICATED OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH PROVIDED. THE INFORMATION DISCLOSED HEREIN ORIGINATED BY AND IS THE PROPERTY OF INTERMEC TECHNOLOGIES CORPORATION AND EXCEPT FOR RIGHTS EXPRESSLY GRANTED BY WRITTEN CONSENT, SUCH INFORMATION SHALL NOT BE DISCLOSED OR DISSEMINATED WHOLE OR IN PART. INTERMEC TECHNOLOGIES CORPORATION RESERVES ALL PATENT, PROPRIETARY, DESIGN, USE, SALE, MANUFACTURING AND REPRODUCTION RIGHTS THERETO.</p>											

CAD DB.REF- 072761.1.01 SYSTEM - HP-ME10				APPROVALS		DATE		6001 36TH AVENUE WEST EVERETT, WA 98203 TITLE ANTENNA, 5 GHZ, OMNI, 3DBI, CEILING MOUNT <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 10%;">SIZE</td> <td style="width: 20%;">CAGE CODE</td> <td style="width: 20%;">DRAWING NUMBER</td> <td colspan="2"></td> </tr> <tr> <td style="text-align: center;">C</td> <td style="text-align: center;">33825</td> <td style="text-align: center;">072761</td> <td colspan="2"></td> </tr> <tr> <td>SCALE</td> <td>NONE</td> <td>USED ON</td> <td>WA21</td> <td>SHEET 1 OF 1</td> </tr> </table>				SIZE	CAGE CODE	DRAWING NUMBER			C	33825	072761			SCALE	NONE	USED ON	WA21	SHEET 1 OF 1
SIZE	CAGE CODE	DRAWING NUMBER																								
C	33825	072761																								
SCALE	NONE	USED ON	WA21	SHEET 1 OF 1																						
DRAWN	R.ZIGLER	5-17-02																								
CHECKED																										
RESP ENG																										
QA																										
MFG ENG																										
SAC																										
CE/ID																										

APPROVED SOURCE(S) OF SUPPLY	
SUPPLIER	PART NUMBER
1. MOBILE MARK	SCR14-5250I
2.	
3.	
4.	
5.	
6.	

REVISIONS					
REV	ECN	ZONE	DESCRIPTION	DATE	DRAWN & APPROVED
01			INITIAL DRAWING CREATION		




- NOTES: UNLESS OTHERWISE SPECIFIED
- REFER TO THE MANUFACTURER'S SPECIFICATIONS FOR COMPLETE DESIGN PARAMETERS.
 - BAG PARTS AND MARK BAG WITH 072762 TO WHICH MANUFACTURED PER SPECIFICATION 606427. DO NOT MARK DASH NUMBER.
 - CHANGES REQUIRE SAC APPROVAL.
 - SPECIFICATIONS:
 FREQUENCY RANGE: 5.15 - 5.35 GHz
 GAIN: 9DBI
 VSWR: 2:1
 IMPEDANCE: 50 OHMS
 BEAMWIDTH 60 VERTICAL, 30° HORIZONTAL
 INPUT POWER (MAX): 100 WATTS
 - ANTENNA IS SUPPLIED WITH MOUNTING KIT AND INSTRUCTION SHEET.

PRELIMINARY
SOURCE CONTROL DRAWING

-001

REVISION	REV STATUS OF SHEETS
5	
4	
3	
2	
1	
	SHEET

NOTICE
 THIS DRAWING SHALL NOT BE DUPLICATED OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH PROVIDED. THE INFORMATION DISCLOSED HEREIN ORIGINATED BY AND IS THE PROPERTY OF INTERMEC TECHNOLOGIES CORPORATION AND EXCEPT FOR RIGHTS EXPRESSLY GRANTED BY WRITTEN CONSENT, SUCH INFORMATION SHALL NOT BE DISCLOSED OR DISSEMINATED WHOLE OR IN PART. INTERMEC TECHNOLOGIES CORPORATION RESERVES ALL PATENT, PROPRIETARY, DESIGN, USE, SALE, MANUFACTURING AND REPRODUCTION RIGHTS THERETO.

CAD DB.REF- 072762.1.01 SYSTEM - HP-ME10		APPROVALS		DATE	 6001 36TH AVENUE WEST EVERETT, WA 98203
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		DRAWN	R.ZIGLER	5-17-02	
		CHECKED			
		RESP ENG			
		QA			
		MFG ENG			TITLE
		SAC			ANTENNA, 5GHZ, CORNER REFLECT
		CE/ID			SIZE
					CAGE CODE
					DRAWING NUMBER
					C
					33825
					072762
					SCALE
					NONE
					USED ON
					WA21
					SHEET 1 OF 1

7

6

5

4

3

2

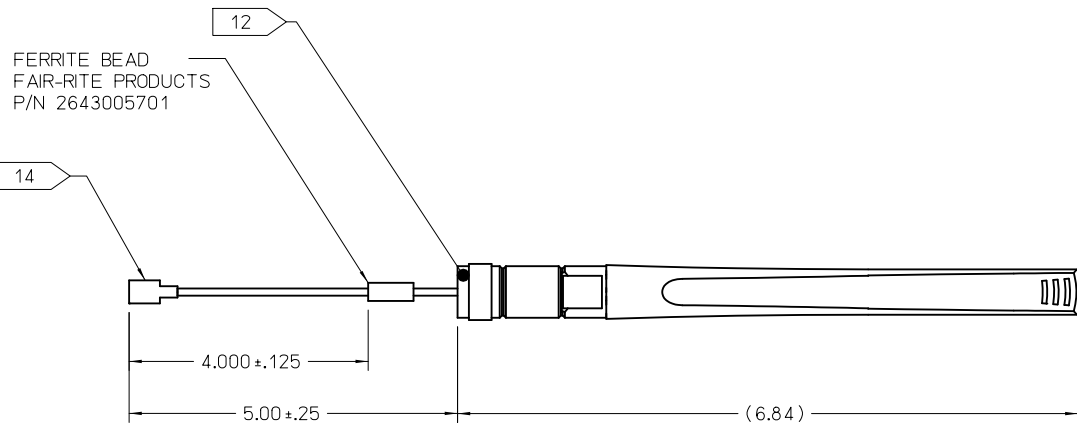
1

APPROVED SOURCE(S) OF SUPPLY

SUPPLIER	PART NUMBER
1. CENTURION	072664-001
2.	
3.	
4.	
5.	
6.	

REVISIONS

REV	ECN	ZONE	DESCRIPTION	DATE	DRAWN & APPROVED
01			INITIAL DRAWING CREATION		
02		C6	7.00 WAS 4.00		
03			ADDED FERRITE BEAD		
04			SHEATH WAS THICKENED		
05			HIROSE IPEX WAS UMP H2		
06			CABLE LENGTH WAS 7.00		



NOTES: CONTINUED FROM RIGHT

- 16. SEE CAD GENERATED WIRE FRAME AND/OR SOLID MODEL PART NUMBER 072664-001 FOR ADDITIONAL FEATURE DETAILS. ALL FEATURES NOT OTHERWISE DEFINED ARE TO BE ±.005/0.13 TO THE NOMINAL FEATURE POSITION AS DEFINED BY THE MODEL. THIS PART REQUIRES AN IGES FILE. DIMENSIONS SHOWN WILL BE USED FOR FIRST ARTICLE VERIFICATION.
- 17. BAG PARTS (100 PER BAG) AND MARK BAG WITH PART NUMBER 072664 AND DASH NUMBER TO WHICH MANUFACTURED PER SPECIFICATION 606427.

NOTES: UNLESS OTHERWISE SPECIFIED

- 1. FILLETS AND EDGE RADII TO BE R .015/0.38 MAXIMUM.
 - 2. EJECTOR PIN FLASH .010/0.25 MAXIMUM.
 - 3. COSMETIC REQUIREMENTS PER SPECIFICATION 044856, APPENDIX "A", CATEGORY II, CLASS A.
 - 4. EXTERIOR SURFACES OF SHEATH PER MOLD-TECH MT-11020 OR EQUIVALENT.
 - 5. PARTING LINE FLASH .005/0.13 MAXIMUM.
 - 6. GATE REMNANT .020/0.51 MAXIMUM. GATING LOCATION TO BE APPROVED BY INTERMEC ENGINEERING.
 - 7. ALL PARTS OF ASSEMBLY EXCEPT THE CABLE AND CONNECTOR ARE TO BE MOLDED BLACK OR BLACK CHROME.
 - 8. PARTS TO BE FREE OF MOLD RELEASE.
 - 9. SPECIFICATIONS:
 ANTENNA TYPE: MONOPOLE COLLINEAR.
 POLARIZATION: LINEAR VERTICAL 360° OMNI.
 FREQUENCY RANGE 5.15 - 5.35 GHz
 GAIN: +4.0 dBI PEAK.
 -3 DB BEAMWIDTH, E-PLANE 35° TYPICAL.
 IMPEDANCE: 50 OHMS.
 VSWR: ACROSS THE BAND <1.50:1 NOMINAL, NOT TO EXCEED 1.80:1.
 POWER RATING: 10 WATT MAXIMUM.
 OPERATING TEMPERATURE: -40°C TO +70°C
 - 10. MECHANICAL REQUIREMENTS:
 SHEATH PULL TEST: 30 LBS.
 SINUSOIDAL VIBRATION WITH THE FOLLOWING CHARACTERISTICS:
 SWEEP RATE: CONSTANT, 1 OCTAVE PER MINUTE.
 1 Hz TO 3 Hz: CONSTANT DISPLACEMENT OF ONE INCH PEAK TO PEAK.
 3 Hz TO 1000 KHz: CONSTANT ACCELERATION OF 1.5 G's.
 - 11. CHANGES REQUIRE SAC APPROVAL.
 - 12. THIS PIECE IS FREE TO ROTATE 360° PRIOR TO BEING FULLY TIGHTENED AND MATES TO A HOLLOW BODY TNC HOUSING.
 - 13. FREE TO ROTATE 90° (UPWARD) ABOUT THIS PIVOT. LOCKS IN 0° AND 90° POSITION.
 - 14. CONNECTOR TO BE HIROSE U.FL-LP-066-A OR IPEX MHF SERIES COAXIAL.
 - 15. SOLDER MASK ENTIRE PCB EXCEPT CONNECTOR AREA.
- NOTES: CONTINUED ON LEFT

D

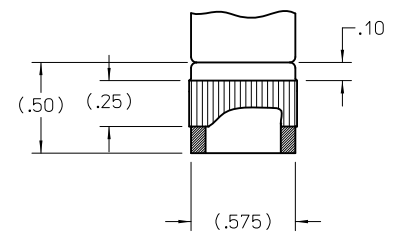
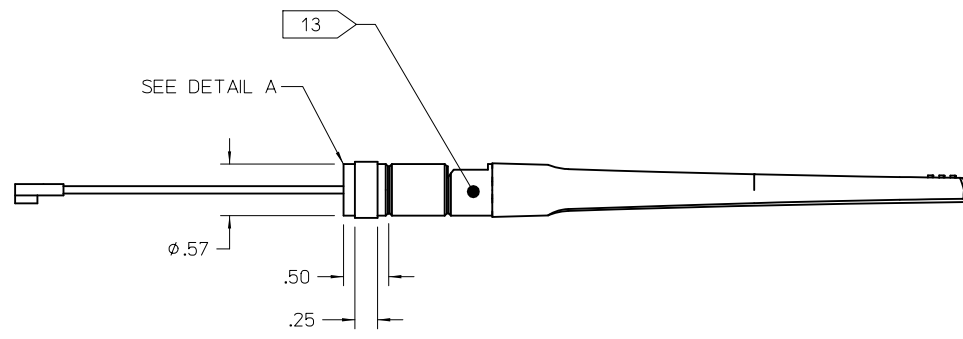
D

C

C

B

B



DETAIL A
ROTATED 90 CCW
SCALE 2/1

-001

A

A

REVISION	REV STATUS OF SHEETS
5	
4	
3	
2	
1	SHEET

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CAD DB.REF- 072664.1.06
SYSTEM - HP-ME10

APPROVALS	DATE
DRAWN RZIGLER	3-26-02
CHECKED	
RESP ENG	
QA	
MFG ENG	
SAC	
CE/ID	

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

.X ±
.XX ± .03
.XXX ±
ANGLES ±

Intermec Technologies Corporation
6001 36TH AVENUE WEST
EVERETT, WA 98203

TITLE ANTENNA, SWIVEL,
5GHZ

SIZE	CAGE CODE	DRAWING NUMBER
D	33825	072664

SCALE 1/1 USED ON WA22 SHEET 1 OF 2

7

6

5

4

3

2

1

7

6

5

4

3

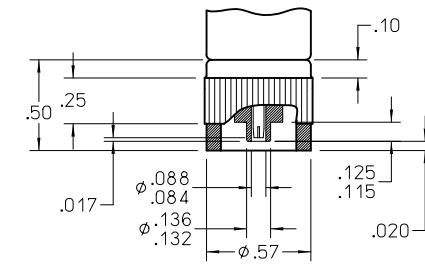
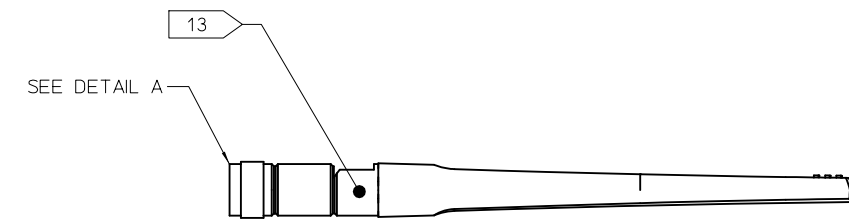
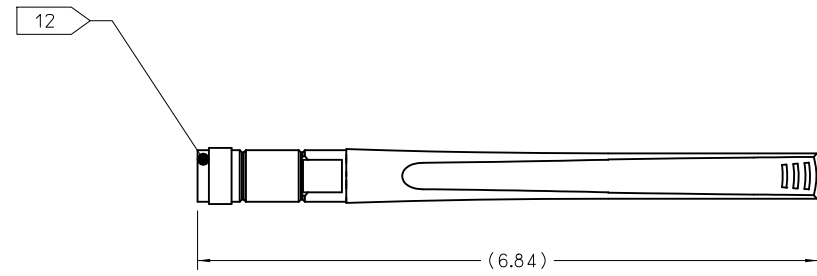
2

1

APPROVED SOURCE(S) OF SUPPLY

SUPPLIER	PART NUMBER
1. CENTURION	072730-001
2.	
3.	
4.	
5.	
6.	

REVISIONS					
REV	ECN	ZONE	DESCRIPTION	DATE	DRAWN & APPROVED
01			INITIAL DRAWING CREATION		
02			THICKENED SHEATH		



DETAIL A
 ROTATED 90 CCW
 SCALE 2/1

NOTES: CONTINUED FROM RIGHT

- 15. SEE CAD GENERATED WIRE FRAME AND/OR SOLID MODEL PART NUMBER 072664-001 FOR ADDITIONAL FEATURE DETAILS. ALL FEATURES NOT OTHERWISE DEFINED ARE TO BE ±.005/0.13 TO THE NOMINAL FEATURE POSITION AS DEFINED BY THE MODEL. THIS PART REQUIRES AN IGES FILE. DIMENSIONS SHOWN WILL BE USED FOR FIRST ARTICLE VERIFICATION.
- 16. BAG PARTS (100 PER BAG) AND MARK BAG WITH PART NUMBER 072730 AND DASH NUMBER TO WHICH MANUFACTURED PER SPECIFICATION 606427.

NOTES: UNLESS OTHERWISE SPECIFIED

- 1. FILLETS AND EDGE RADII TO BE R .015/0.38 MAXIMUM.
- 2. EJECTOR PIN FLASH .010/0.25 MAXIMUM.
- 3. COSMETIC REQUIREMENTS PER SPECIFICATION 044856, APPENDIX "A", CATEGORY II, CLASS A.
- 4. EXTERIOR SURFACES OF SHEATH PER MOLD-TECH MT-11020 OR EQUIVALENT.
- 5. PARTING LINE FLASH .005/0.13 MAXIMUM.
- 6. GATE REMNANT .020/0.51 MAXIMUM. GATING LOCATION TO BE APPROVED BY INTERMEC ENGINEERING.
- 7. ALL PARTS OF ASSEMBLY ARE TO BE MOLDED BLACK OR BLACK CHROME.
- 8. PARTS TO BE FREE OF MOLD RELEASE.
- 9. SPECIFICATIONS:
 ANTENNA TYPE: MONOPOLE COLLINEAR.
 POLARIZATION: LINEAR VERTICAL 360° OMNI.
 FREQUENCY RANGE 5.15 - 5.35 GHz
 GAIN: +4.0 dBI PEAK.
 -3 DB BEAMWIDTH, E-PLANE 35° TYPICAL.
 IMPEDANCE: 50 OHMS.
 VSWR: ACROSS THE BAND <1.50:1 NOMINAL, NOT TO EXCEED 1.80:1.
 POWER RATING: 10 WATT MAXIMUM.
 OPERATING TEMPERATURE: -40°C TO +70°C
- 10. MECHANICAL REQUIREMENTS:
 SHEATH PULL TEST: 30 LBS.
 SINUSOIDAL VIBRATION WITH THE FOLLOWING CHARACTERISTICS:
 SWEEP RATE: CONSTANT, 1 OCTAVE PER MINUTE.
 1 Hz TO 3 Hz: CONSTANT DISPLACEMENT OF ONE INCH PEAK TO PEAK.
 3 Hz TO 1000 KHz: CONSTANT ACCELERATION OF 1.5 G's.
- 11. CHANGES REQUIRE SAC APPROVAL.
- 12. THIS PIECE IS FREE TO ROTATE 360°.
- 13. FREE TO ROTATE 90° (UPWARD) ABOUT THIS PIVOT. LOCKS IN 0° AND 90° POSITION.
- 14. SOLDER MASK ENTIRE PCB EXCEPT CONNECTOR AREA.

NOTES: CONTINUED ON LEFT

-001

PRELIMINARY

REVISION	REV STATUS OF SHEETS
5	
4	
3	
2	
1	SHEET

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CAD DB.REF- 072730.1.02 SYSTEM - HP-ME10		APPROVALS		DATE	 6001 36TH AVENUE WEST EVERETT, WA 98203 TITLE ANTENNA, SWIVEL, 5GHZ, TNC SIZE CAGE CODE DRAWING NUMBER D 33825 072730 SCALE 1/1 USED ON WA22 SHEET 1 OF 2
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		DRAWN	RZIGLER	5-01-02	
.X ±		CHECKED			
.XX ± .03		RESP ENG			
.XXX ± .010		QA			
ANGLES ±		MFG ENG			
		SAC			
		CE/ID			