

Intermec certifies that all antennas described in this exhibit will be sold with a unique antenna connector that meets the requirements of 47 CFR 15.203. Specifically, either reverse polarity TNC or reverse polarity N type connectors.

Types of antenna to be used with model 802MIG2

<u>Type Name</u>	<u>Intermec PN</u>	<u>Gain</u>	<u>Type</u>
NCC Reverse SMA Whip	805-544-002	+2.1 dBi	Omni
Micropatch Antenna	805-545-0xx	+4.5 dBi	Flat Panel
Corner Reflector	071122-001	+9.0 dBi	Corner Reflector
Flat Panel	067263-001	+9.0 dBi	Flat Panel
Omni Antenna	065349-001	+9.0 dBi	Omni
Intermec Custom Internal	073360-001	+3.5 dBi	Flat Panel
Yagi Antenna	063365-001	+13.0 dBi	Yagi
Omni Antenna	063363-001	+3.0 dBi	Omni
Centurion Custom SMB	063825-005	+1.5 dBi	Omni
Terminal Custom Dipole	070143-001	+1.5 dBi	Omni
Reverse TNC Dipole	066147-001	+1.0 dBi	Omni
Radiall Micropatch	590993-001	+4.5 dBi	Flat Panel
Cushcraft S2403BP12RNF Omni	063366-001	+5.0 dBi	Omni
Centurion	071121-001	+2.0 dBi	Diversity
Centurion CAF94120 Patch	067261-001	+3.0 dBi	Flat Panel
Centurion CAF95989 Panel	067262-001	+5.0 dBi	Flat Panel
Intermec Custom Internal	071478-001	+3.0 dBi	Flat Panel
Intermec Custom External	067325-002	+1.5 dBi	Omni
Custom Swivel Dipole	069903-001	+1.5 dBi	Omni
Xertex 2450D3W-RS60	805-552-001	+3.0 dBi	Flat Panel
PA3-2460-DS45/588	071176-001	+4.0 dBi	Flat Panel
ASK pLANet 13	805-543-001	+3.0 dBi Tx	Flat Panel
MAXC24505 with Mirror Mount	805-580-103	+5.0 dBi	Omni
MAXC24505 with Magnet Mount	805-580-102	+5.0 dBi	Omni
MAXC24505 with Hole Mount	805-580-101	+5.0 dBi	Omni

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APPROVED SOURCE(S) OF SUPPLY

SUPPLIER	PART NUMBER
1. CUSHCRAFT	S2403BP12RNF [7]
2.	
3.	
4.	
5.	
6.	

REVISION		REV STATUS OF SHEETS			REVISIONS			
REV	DESCRIPTION	DATE	DRAWN & APPROVED					
C	-001 RELEASED AT REV C							
D	-001 PER ECN 025344	8-27-96	G.OPSTAD	RCH				
E	-002 PER ECN 103724	4-21-03	G.OPSTAD	GAR				

D

D

C

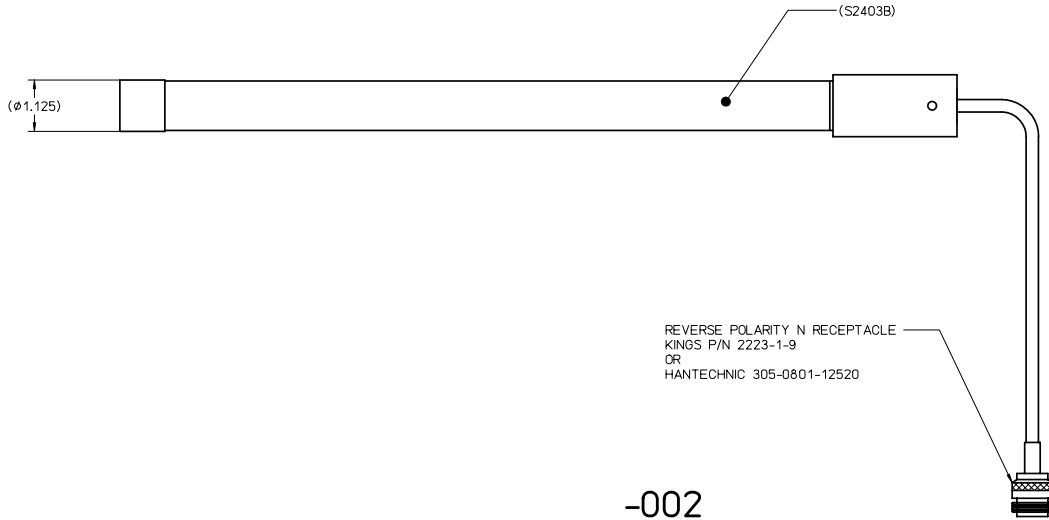
C

B

B

A

A



NOTES: UNLESS OTHERWISE SPECIFIED

- MATERIAL: POLYCARBONATE.
- REMOVE ALL BURRS AND SHARP EDGES.
- COSMETIC REQUIREMENTS PER SPECIFICATION 044856, APPENDIX C, CATEGORY II, CLASS B.
- BAG PARTS AND MARK BAG WITH 063363 PER SPECIFICATION 606427. DO NOT MARK DASH NUMBER.
- CHANGES REQUIRE SAC APPROVAL.
- SPECIFICATION:
 FREQUENCY RANGE: 2400-2500MHz
 IMPEDANCE: 50 OHMS (NOMINAL)
 GAIN: 3dBd (REFERENCED TO DIPOLE)
 5dbi (REFERENCED TO ISOTROPIC)
 BANDWIDTH: 100MHz (VWSR <=1.5:1)
 VSWR: <=1.5:1 (2400-2500MHz)
 WIND SURVIVAL: 125MPH
 POWER RATING: 50 WATTS MAX

[7] MOUNTING HARDWARE KIT AND INSTRUCTIONS INCLUDED.

-002

SOURCE CONTROL DRAWING

CAD DBREF- 063363.1.e SYSTEM - HP-ME30		APPROVALS		DATE	Intermec 6001 36TH AVENUE WEST EVERETT, WA 98203-9280
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		DRAWN	J.FOTI	8-23-95	
.XX *		CHECKED	R.HOAGLUND	1-19-96	TITLE ANTENNA, 2.4GHZ, OMNI
.XXX *		RESP ENG	M.CHIN	1-23-96	
ANGLES *		QA	T.ANDERSON		SIZE: CAGE CODE D 338 25
		MFG ENG	M.SALATINO	1-22-96	
		SAC	P.HELTON	1-22-96	DRAWING NUMBER 063363
		COMPNT ENG			REV E
		SCALE NONE		SHEET 1 OF 1	

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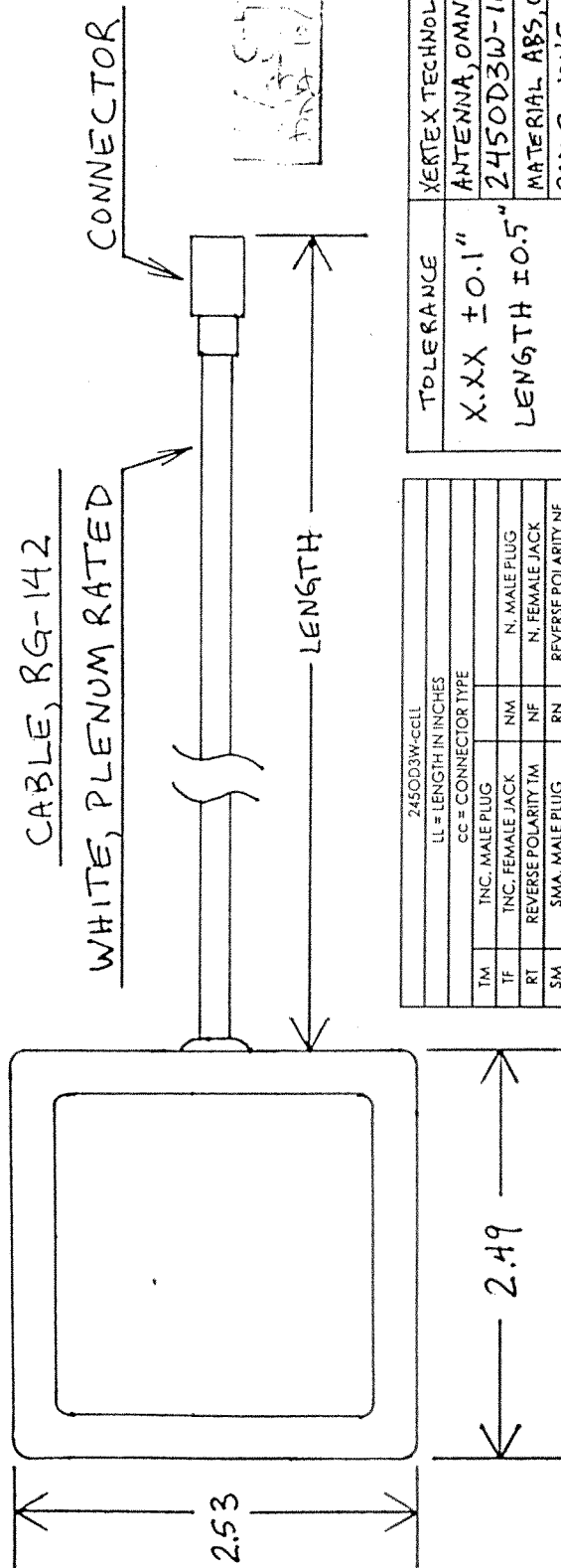
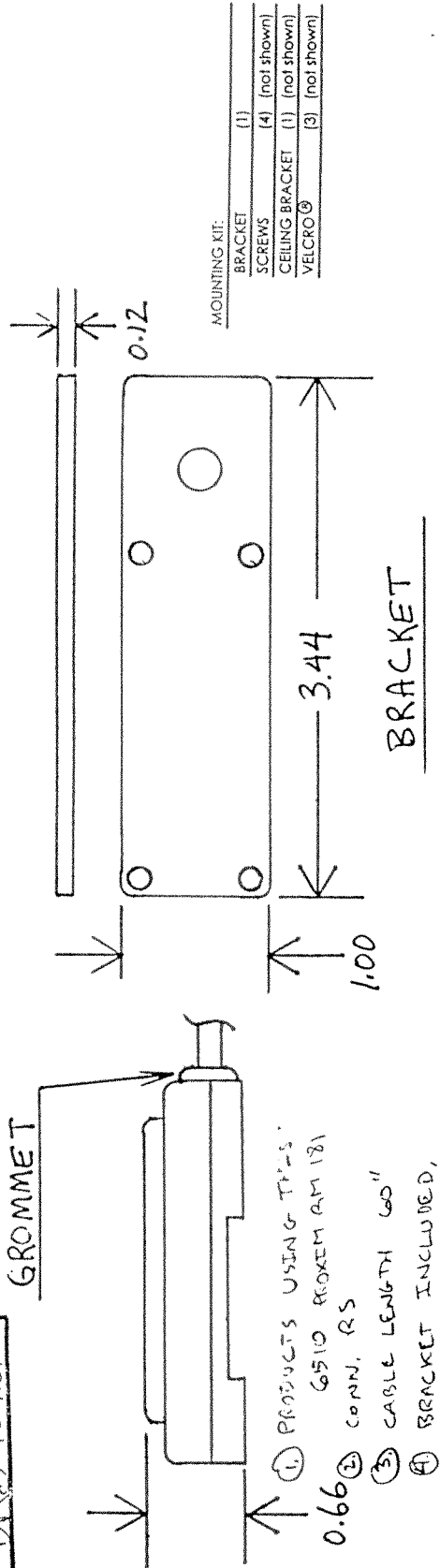
3

2

1

5.0 OUTLINE/DIMENSIONS:

COPY
BRB 12/18/98



2450D3W-CELL	
LL = LENGTH IN INCHES	
CC = CONNECTOR TYPE	
TM	INC. MALE PLUG
TF	INC. FEMALE JACK
RT	REVERSE POLARITY TM
SM	SMA, MALE PLUG
SF	SMA, FEMALE JACK
RS	REVERSE POLARITY SM
NM	N, MALE PLUG
NF	N, FEMALE JACK
RN	REVERSE POLARITY NF
MX	MMCX
TR	7-16 DIN

TOLERANCE	X.XX ± 0.1"
LENGTH	± 0.5"
VERTEX TECHNOLOGIES INC.	
ANTENNA, OMNI, 2.45 GHz	
2450D3W-INSP rev.A	
MATERIAL ABS, OFF WHITE	
SCALE NONE	
BRB 10/8/98	

6.0 SPECIFICATIONS:

Element type:	Air-loaded patch
Frequency range:	2400 – 2500 MHz
Peak gain:	3.0 dBi
Polarization:	Mixed
Pattern (total power):	Omni-Directional
Impedance:	50Ω
Maximum input power:	50W
VSWR (min. performance):	1.5:1
Size:	2.53"x2.49"x0.66"
Radome material:	ABS
Operating temperature:	-40°C to +70°C
Storage temperature:	-40°C to +70°C

5.0 Antenna Specifications:

- 5.1 Center Frequency: 2480 MHz
- 5.2 Frequency Bandwidth: 100 MHz
- 5.3 Nominal Impedance: 50 Ohms
- 5.4 VSWR: 2:1 max.
- 5.5 Antenna Gain: 4.5dB min. @zenith
- 5.6 3 dB Beamwidth: 85°
- 5.7 Front to Back Ratio: 14 dB min.
- 5.8 Polarization Diversity: -001 Part, horizontal/vertical
-002 Part, vertical
-003 Part, horizontal/vertical
-004 Part, horizontal/vertical
-005 Part, horizontal/vertical

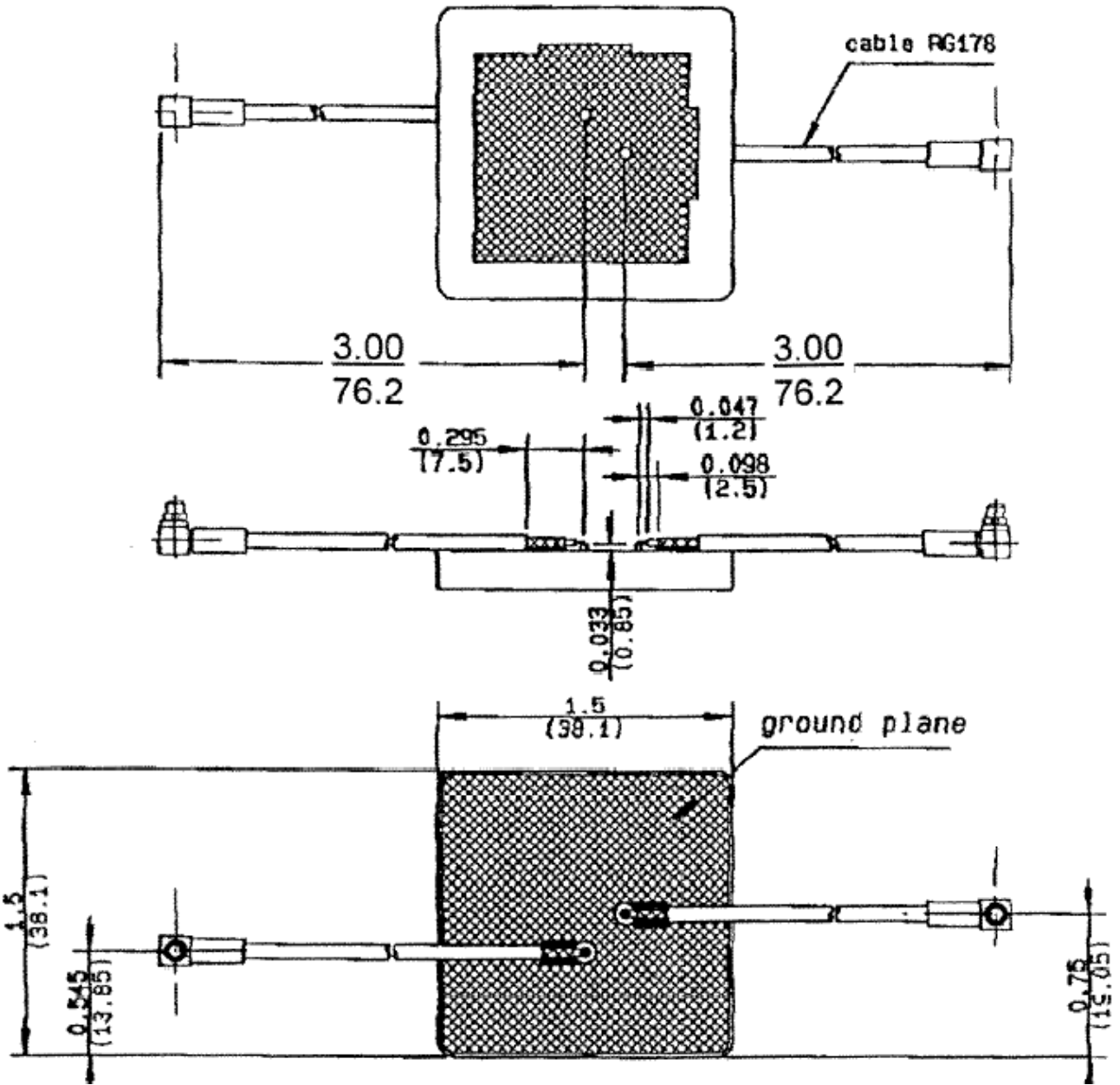
6.0 Ceramic Characteristics:

- 6.1 Porosity: 0
- 6.2 Permittivity: 6
- 6.3 Loss Factor: 0.002 max.

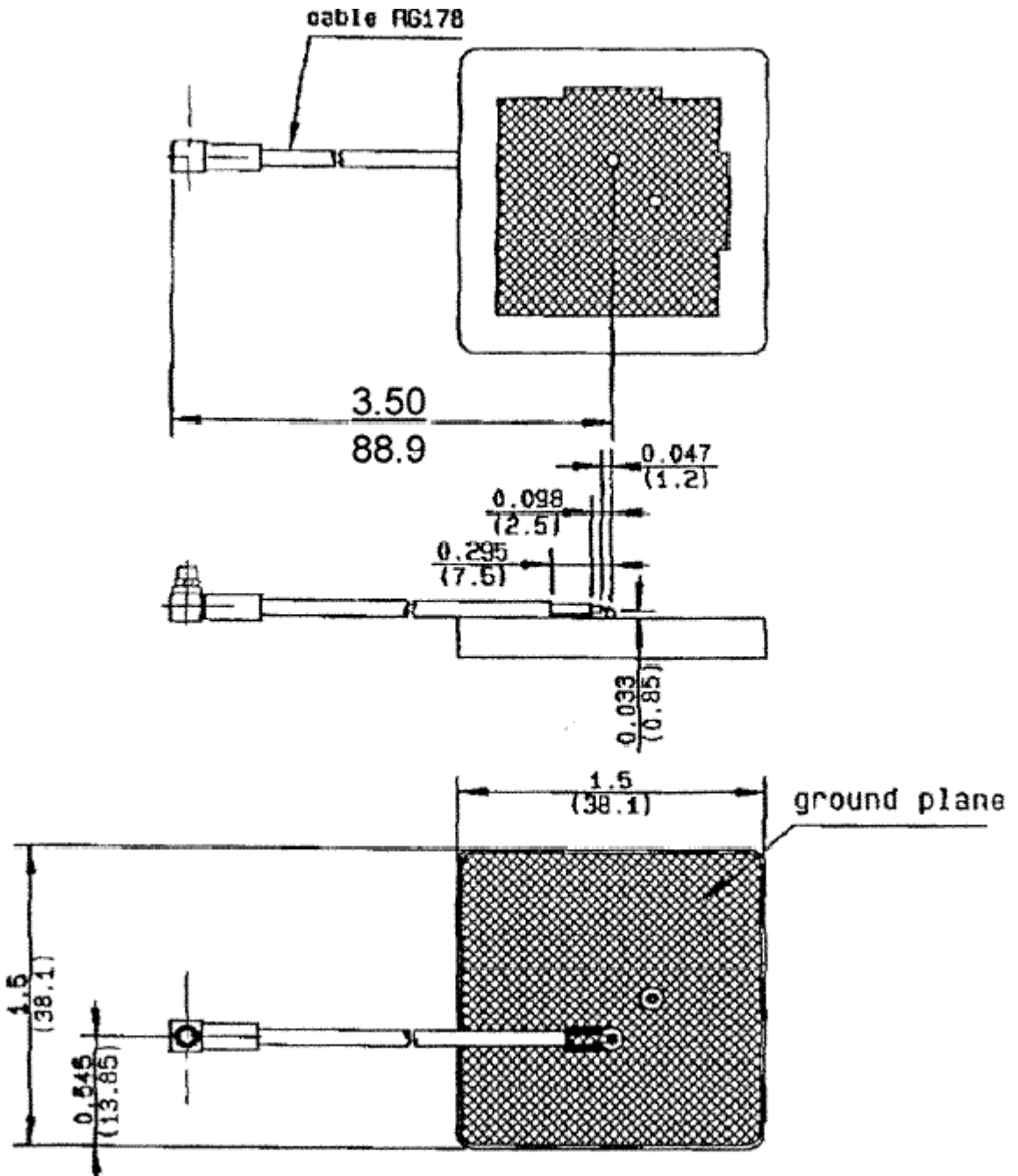
7.0 Mechanical Specifications:

- 7.1 Substrate: Ceramic
- 7.2 Antenna Element and Ground Plane: Screened metallization
- 7.3 Coaxial Cable: RG-178 style (ref.)
- 7.4 Cable Connection Means: Solder
- 7.5 Cable I/O Connector(s): -001 Part, R/A MMCX plugs (2 each)
-002 Part, R/A MMCX plug (1 each)
-003 Part, R/A proprietary Lucent plugs (2 each)
-004 Part, R/A MMCX plugs (2 each)
-005 Part, R/A MMCX plugs (2 each)

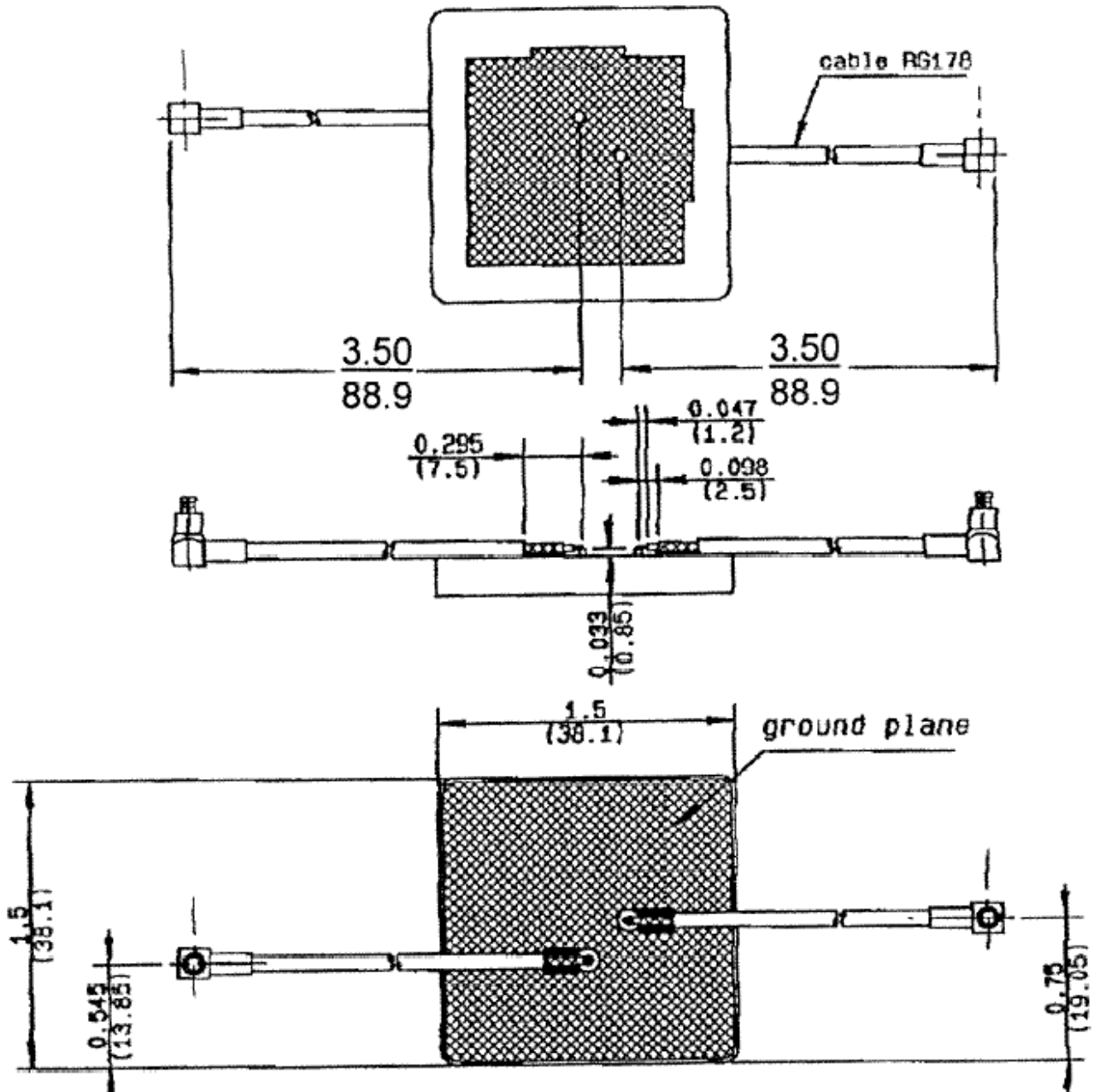
8.0 Outline Drawing: -001 Part



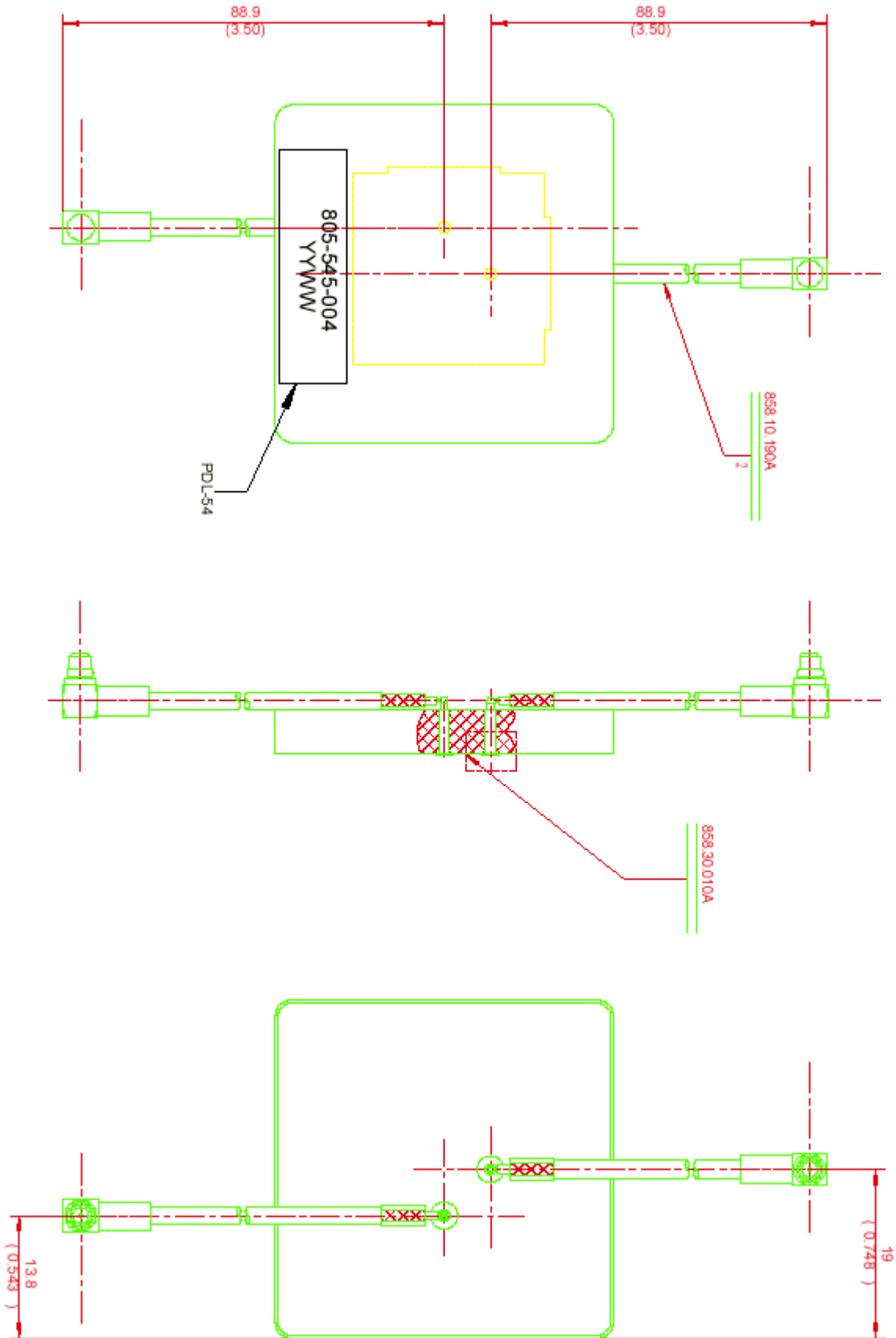
9.0 Outline Drawing: -002 Part



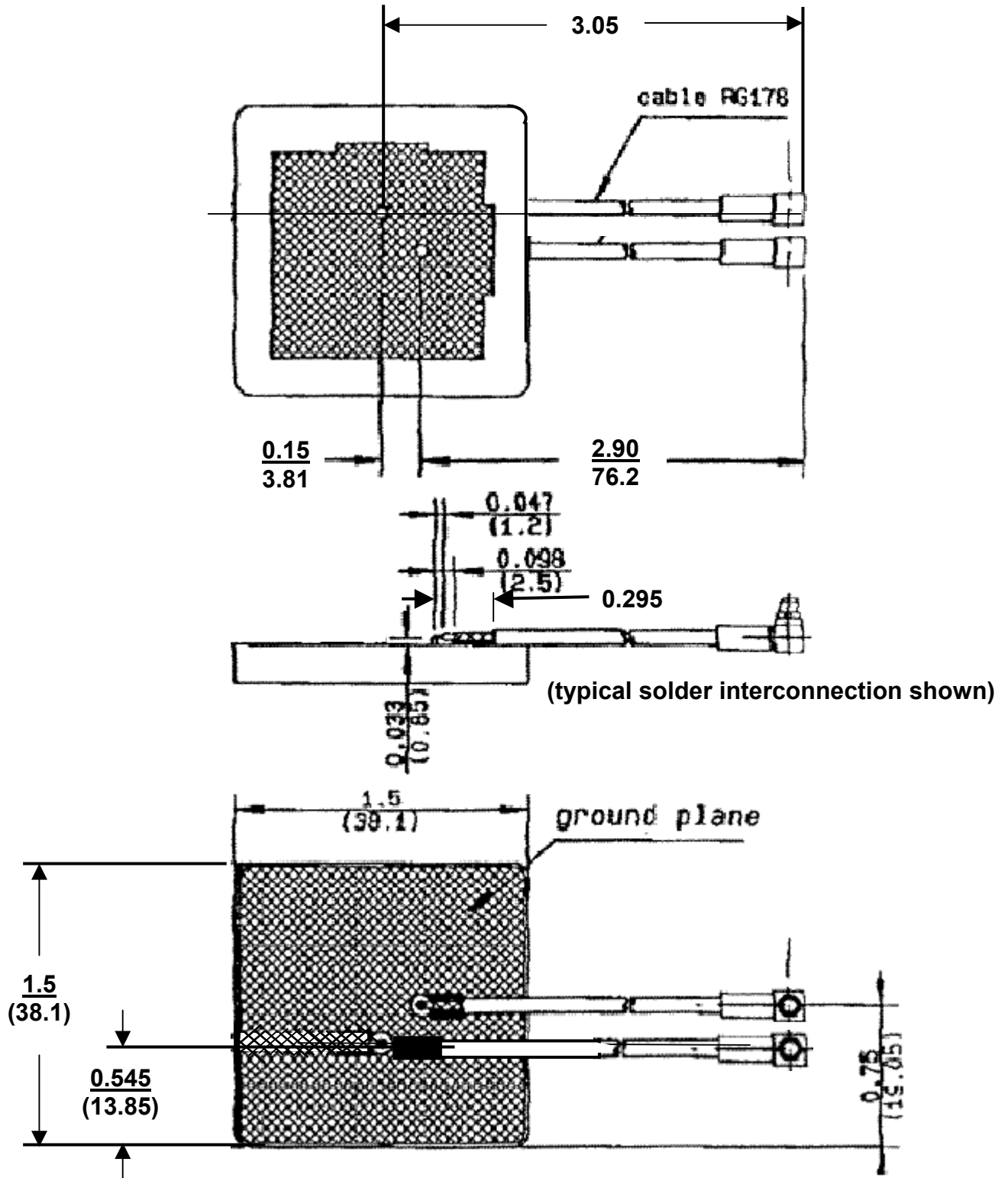
10.0 Outline Drawing: -003 Part



11.0 Outline Drawing: -004 Part



12.0 Outline Drawing (Inch/mm): -005 Part



5.0 Antenna Specifications:

Antenna Type: Flexible Whip

Frequency Range: 2.4 – 2.5GHz

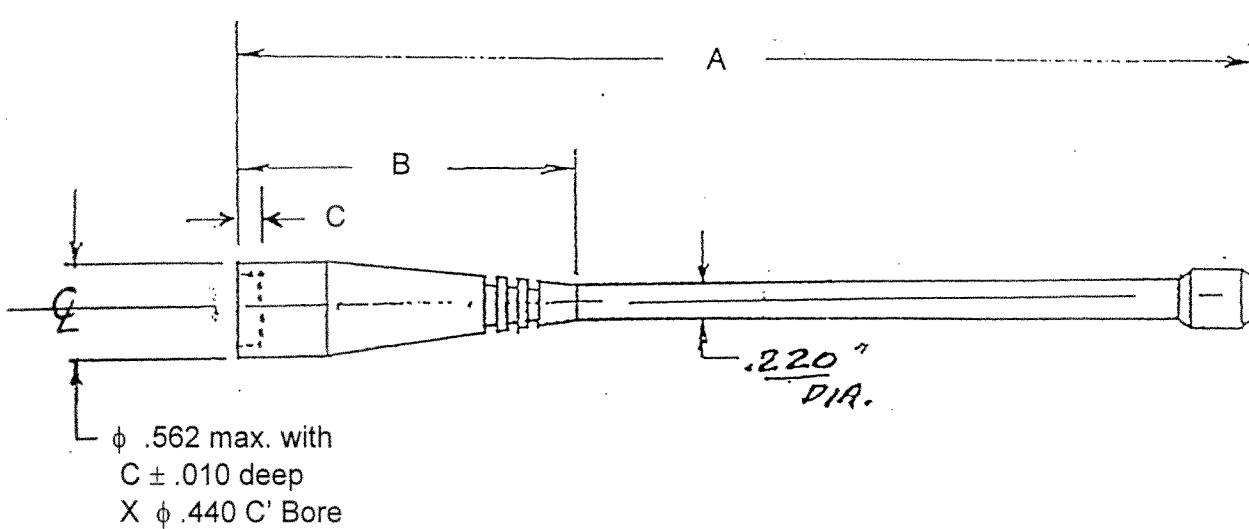
Gain: 2.0 dbi

Component Specifications:

- a) **Mount:** Reverse polarity SMA connector, with white dielectric.
- b) **Radiator:** RG – 178 / U 50 Ohm Coaxial Cable
- c) **Overmold:** Black 80A durometer flexible vinly body, molded over radiator and mount, cap adhesive bonded to body.

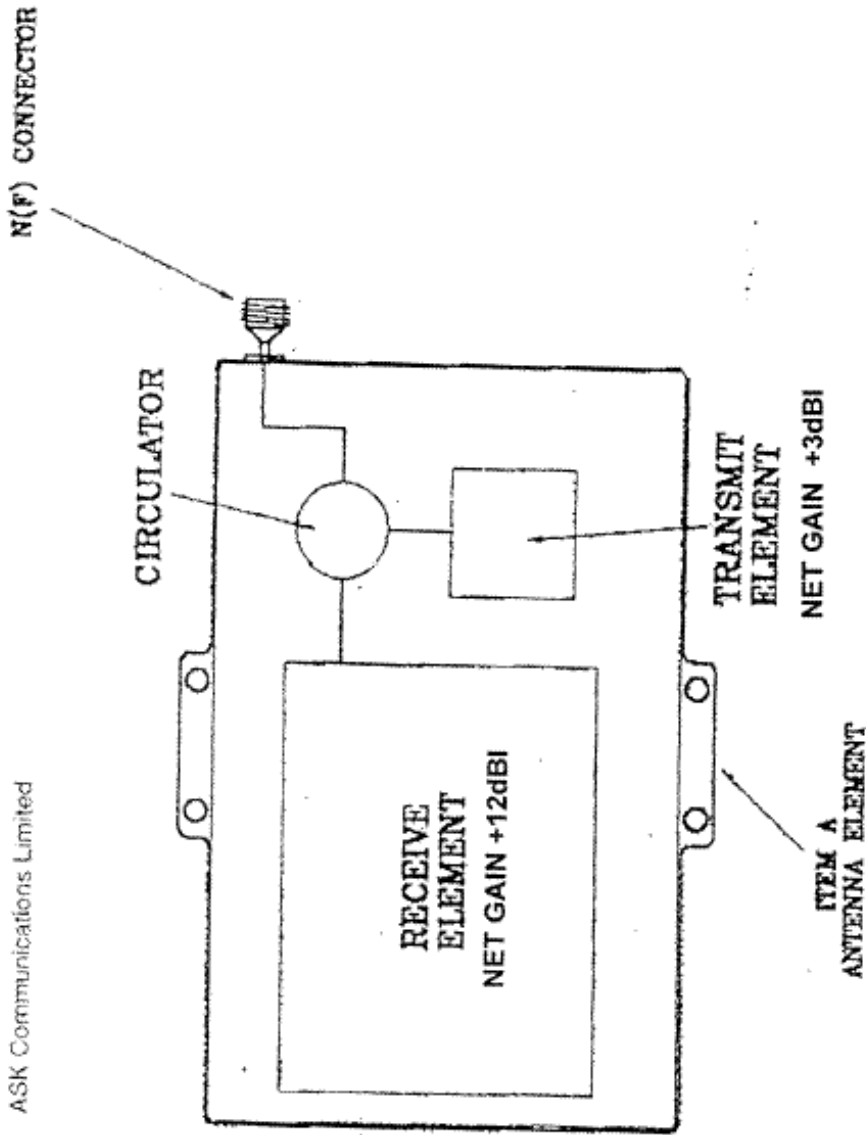
-001: A = $3.69 \pm .100$
 B = $2.19 \pm .010$
 C = $0.25 \pm .010$

-002: A = $3.57 \pm .100$
 B = $2.08 \pm .010$
 C = $0.135 \pm .010$



All Dimensions in Inches, Not to Scale.

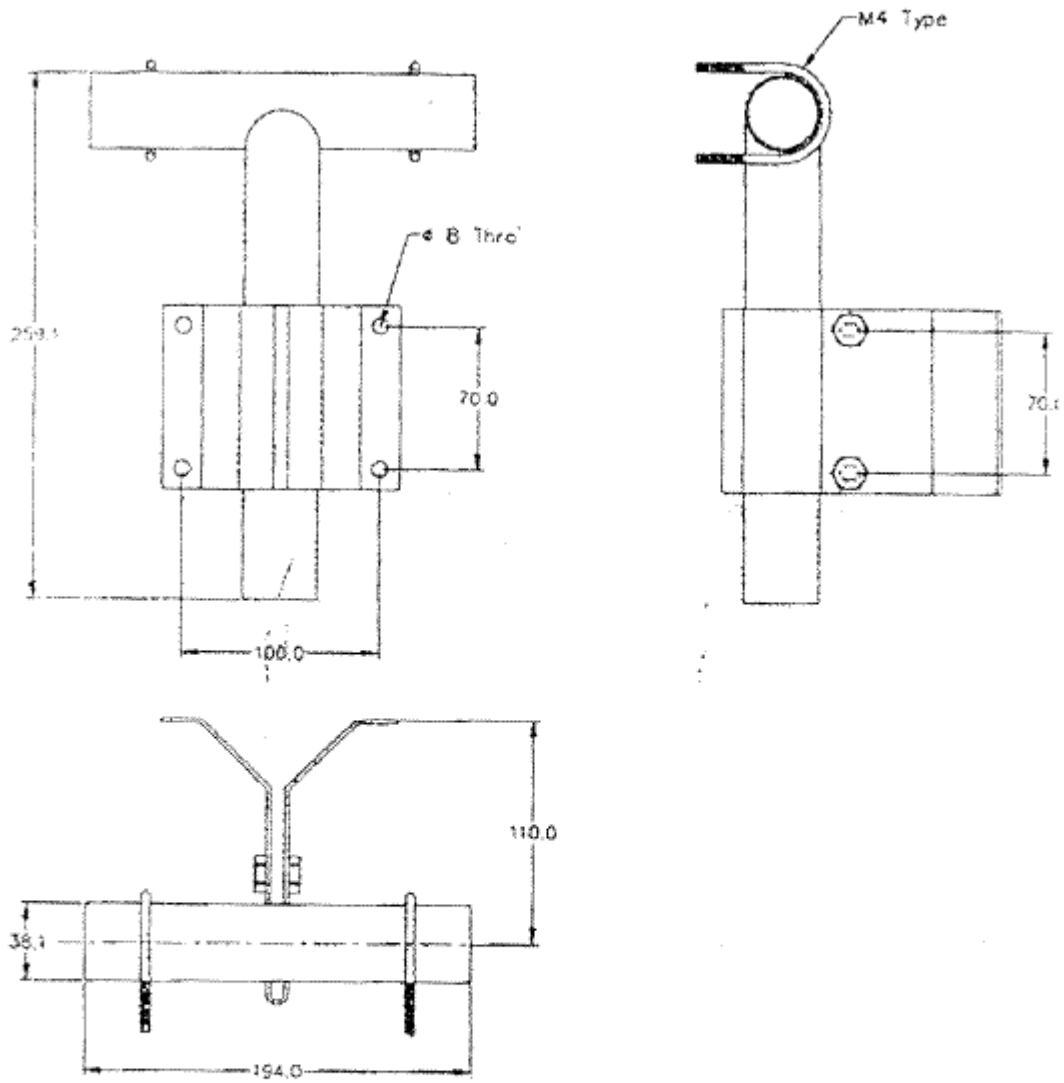
5.0 pLANet 13 ETS/265 Antenna Assembly:



pLANet 13 ETS/265 Antenna Assembly	
HOUSING: Machined Aluminium, Alcrom 1200 Plated.	DATE: 28/05/97
RADOME: Glass Reinforced Polymer Porcelain Blue	SCALE: N.T.S.
FILE REF: DS0265	DRG NO. SK 0265


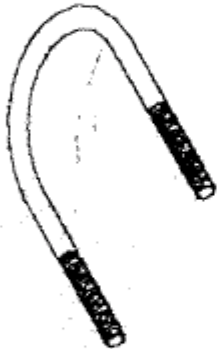
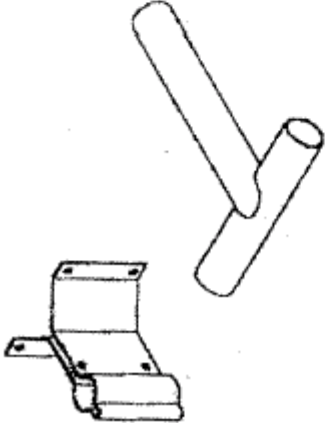
NOTE: ASSEMBLY INCLUDES
MOUNTING KIT

5.1 pLANet 13 Mounting Kit/173



SK001711
pLANet 13 Mounting kit/173
Panel Mounted

5.1 pLANet 13 Mounting Kit: Continued

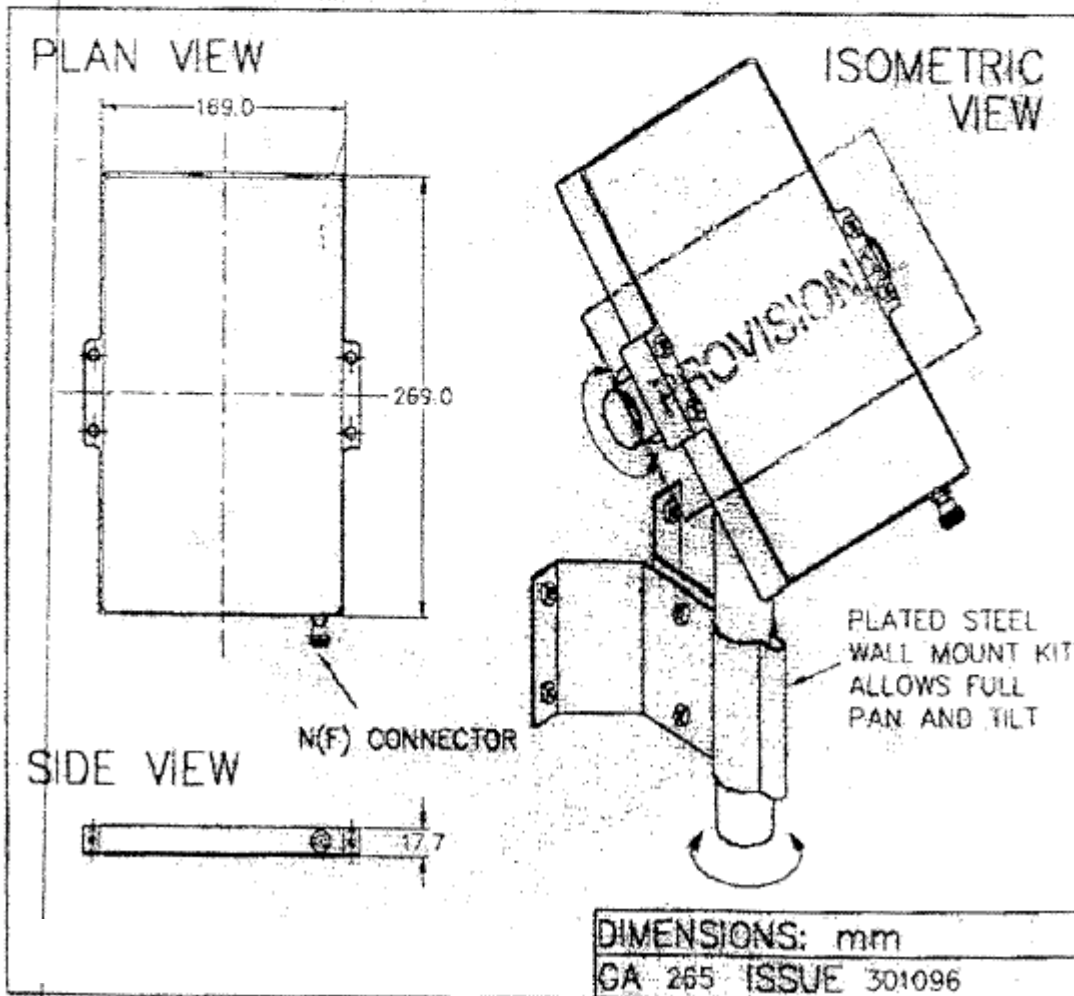
	<p>EA 0444 EA 0404 EA 0443</p>	<p>NO. NUTS, 2 OFF NO. WASHERS, 2 OFF NO. BOLTS, 2 OFF</p>	<p>ZIP STRAPS, 2 OFF EA 0303</p>
	<p>EA 1005-1</p>	<p>ZIP STRAP, 4 OFF</p>	<p>DENSU TAPE (75 x 200) EA 0356</p>
	<p>EA 0544-3</p>	<p>Mounting Kit (T-Pole & Manholes)</p>	<p>POLY ISOBUTYLENE TAPE (25 x 100) EA 0304</p>

5.2 Specification and Drawings: Model: pLANet 13 - ETS/265

Dual Antenna System for Extended Distance Wireless LANs (ETS 300 - 328)

MODEL: pLANet 13-ETS/265

FREQUENCY: 2.4 - 2.5 GHz	GAIN: Tx 2.5 dBIC/Rx 13.0 dBIC
POLARISATION: R.H. Circular	BEAMWIDTH: Tx 80°x80°/Rx 40°x40°
AXIAL RATIO: 3 dB	VSWR: 1.5 : 1
INPUT POWER: 100 mW	FRONT TO BACK: 25 dB
TEMPERATURE: -20°C to +50°C	MASS: 2.5 Kg
FINISH: Alocrom 1200 & White Radome	WIND LOADING: X



4

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1

APPROVED SOURCE(S) OF SUPPLY

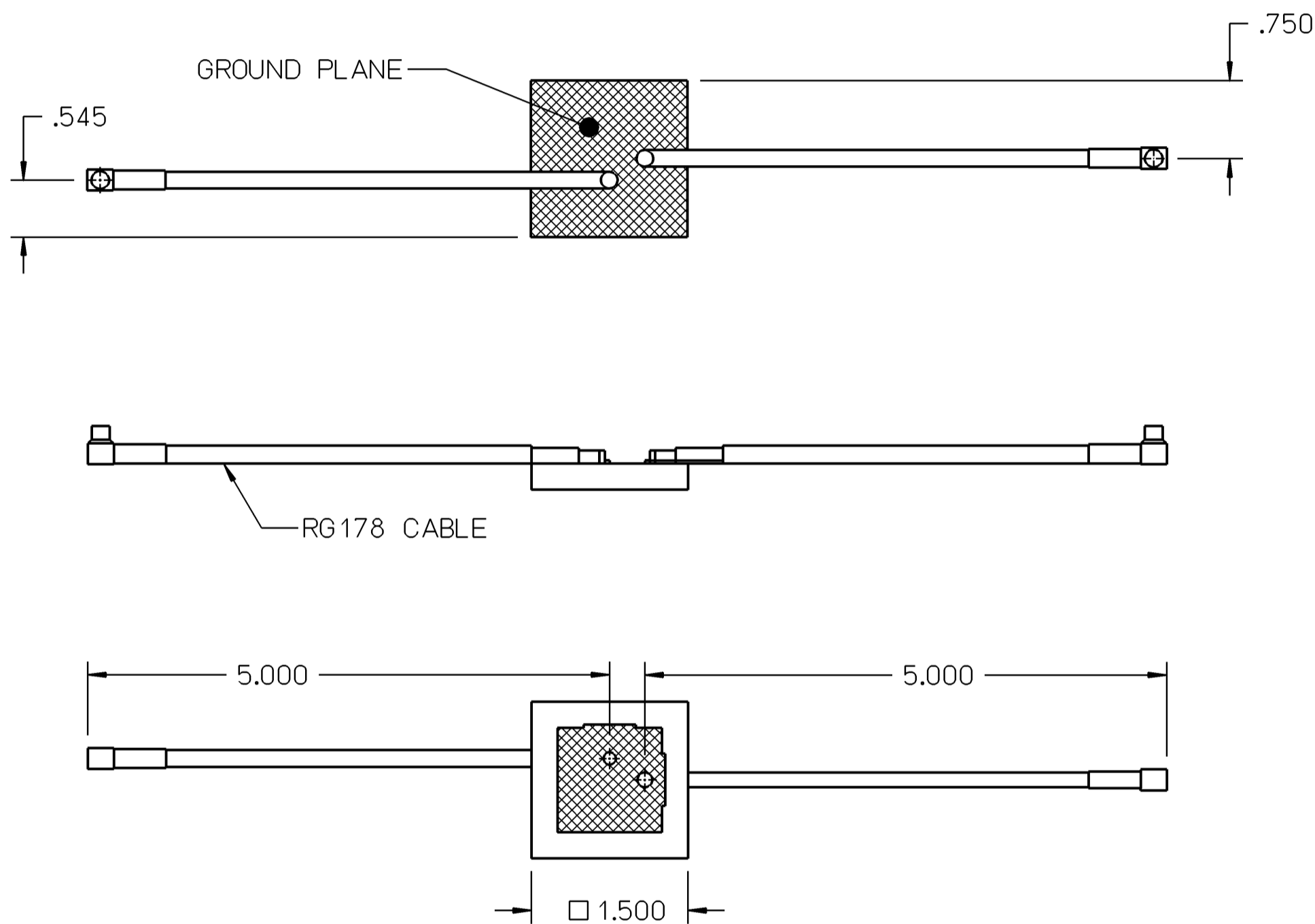
SUPPLIER	PART NUMBER
1. RADIALL	R380.500.008
2.	
3.	
4.	
5.	
6.	

REVISIONS

REV	DESCRIPTION	DATE	DRAWN & APPROVED
B	-001 RELEASED AT REV B		

NOTES: UNLESS OTHERWISE SPECIFIED

- REFER TO THE MANUFACTURER'S SPECIFICATIONS FOR COMPLETE DESIGN PARAMETERS.
- MINIMUM MARKING REQUIREMENTS SHALL CONSIST OF THE MANUFACTURER'S PART NUMBER AND ID.
- CHANGES REQUIRE SAC APPROVAL.
- SPECIFICATIONS:
 CENTER FREQUENCY: 2480 MHz
 FREQ BANDWIDTH: 100 MHz
 NOM IMPEDANCE: 50 OHM
 VSWR: 2:1 MAX
 GAIN: 4.5 dB MIN @ ZENITH
 3 dB BEAMWIDTH: 85°
 FRONT TO BACK RATIO: 14 dB MIN
 POLARISATION DIVERSITY: HORIZONTAL
 VERTICAL
 CERAMIC CHARACTERISTICS: POROSITY: 0
 PERMITTIVITY: 6
 LOSS FACTOR: 0.002 MAX
 CONNECTOR TYPE: SPECIAL LUCENT RIGHT ANGLE PLUG



SOURCE CONTROL DRAWING

CAD DB,REF- 590993.1.b
SYSTEM - HP

-001

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

.XX ±
.XXX ± .010
ANGLES ±

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APPROVALS		DATE
DRAWN	R.HOAGLUND	03-15-99
CHECKED	G.OPSTAD	03-25-99
RESP ENG	T.BENSON	03-29-99
QA		
MFG ENG	V.LORD	03-26-99
SAC	K.EROGLU	03-29-99
CE/ID	R.KELLY	04-02-99

Intermec Technologies Corporation
 6001 36TH AVENUE WEST
 EVERETT, WA 98203-9280

TITLE ANTENNA, MICROPATCH, DUAL LUCENT

SIZE	CAGE CODE	DRAWING NUMBER	REV
C	33825	590993	B
SCALE NONE		SHEET 1 OF 1	

4

3

2

1

D

D

C

C

B

B

A

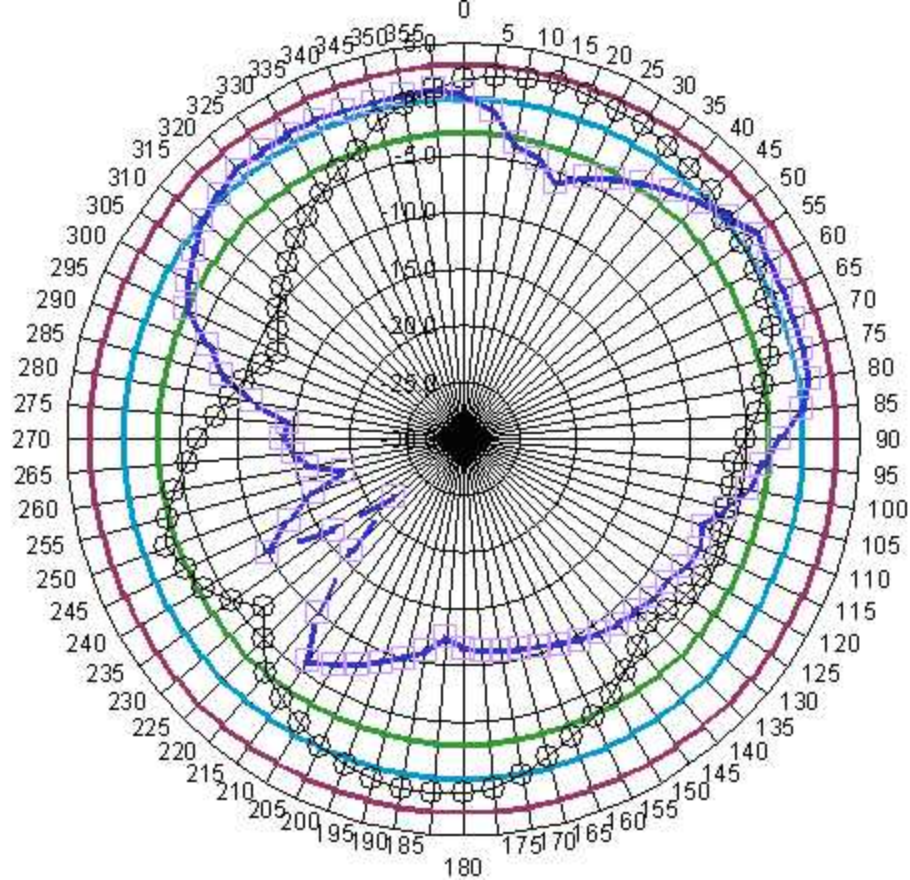
A

1.1 Electrical specification of the 073360 Antenna.

Frequency Range:	2.4 to 2.5 Ghz
Gain range:	3.5 dBi peak gain
Impedance:	50 ohm
VSWR (nominal):	< 2.0 : 1
Efficient (Radiated Power/Input power) :	0.8 min.
BW for VSWR 2.0:1	> 100 Mhz
Power rating (min.):	2.0 Watt
Operating Temperature	-40 to 85° C
Humidity:	Up to 100% at 38 degree C
Connection type:	1 soldering pigtail compatible with Hirose P/N: U.FL-LP-066 (or 05G-085)
Polarization:	E-Vertical (linear)
Radiation pattern:	directional see plots
Antenna type:	PIFA (Planar Inverter F Antenna.)

Note:

Antenna assembly	Intermec P/N:	073360
Manufacturer/assembler:	Centurion Wireless Technologies Inc.	



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1

APPROVED SOURCE(S) OF SUPPLY	
SUPPLIER	PART NUMBER
1. CENTURION INTL	CAF94169
2.	
3.	
4.	
5.	
6.	

REVISIONS					
REV	ECN	ZONE	DESCRIPTION	DATE	DRAWN & APPROVED
01			INITIAL DRAWING CREATION		
02			ADD CENTURION PART NO.	5-09-01	D.GILPIN
03			PRE-RELEASE		
A			-001 RELEASED AT REV A		

D

D

C

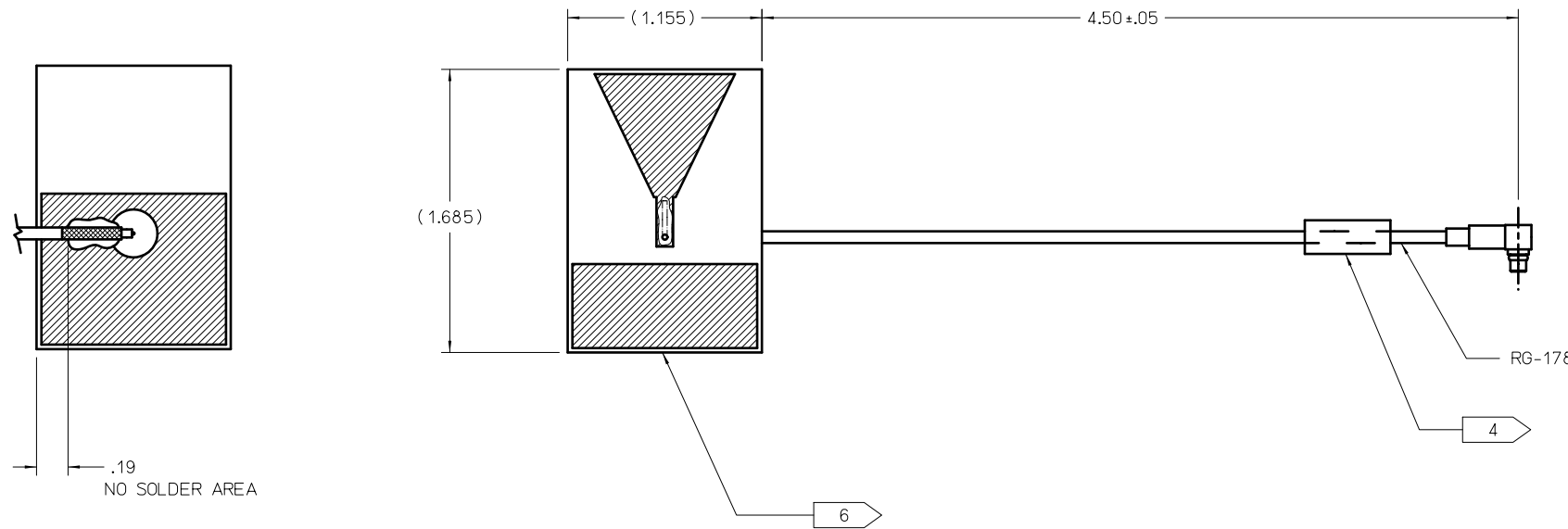
C

B

B

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A



NOTES: UNLESS OTHERWISE SPECIFIED

- SPECIFICATIONS:
FREQUENCY RANGE: 2.4 - 2.5 GHz.
GAIN: +3.0 DBI PEAK.
IMPEDANCE: 50 OHMS.
VSWR: ACROSS THE BAND < 1.5:1.
POWER RATING: 50 WATT MAXIMUM.
OPERATING TEMPERATURE:
-40°C TO 70°C @ 95% RH.
- TERMINATION: RADIALL R299.797.107
- CHANGES REQUIRE SAC APPROVAL.
- FERRITE BEAD. FAIR-RITE PRODUCTS PART NUMBER 2643005701; FLOATS ON CABLE.
- BAG PARTS AND MARK BAG WITH 071478 AND DASH NUMBER TO WHICH MANUFACTURED. MARK SHIPPING CONTAINER WITH 071478 AND DASH NUMBER TO WHICH MANUFACTURED. MARK BOTH PER SPECIFICATION 606427.
- PCB MATERIAL MUST BE SUPPLIED AS UL RECOGNIZED PRINTED WIRING WITH A MINIMUM FLAME RATING OF UL 94HB.

-001

RELEASED
SPECIFICATION CONTROL DRAWING

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CAD DB.REF- 071478.1.a
SYSTEM - HP-ME10
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

REVISION	REV STATUS OF SHEETS
5	
4	
3	
2	
1	SHEET

.X ±
.XX ±.02
.XXX ±
ANGLES ±

APPROVALS		DATE	Intermec Technologies Corporation	
DRAWN	D.GILPIN	03-01-01	6001 36TH AVENUE WEST EVERETT, WA 98203-9280	
CHECKED	G.OPSTAD	8-24-01	TITLE ANTENNA, INTERNAL, 802.11, RADIALL	
RESP ENG	D.GILPIN	8-28-01	SIZE	CAGE CODE
QA	L.GRAHAM	8-29-01	D	33825
MFG ENG	G.NEWBERRY	8-29-01	DRAWING NUMBER	071478
SAC	O.DREW	8-27-01	SCALE	4/1
CE/ID	R.KELLY	8-29-01	USED ON	2435
			SHEET	1 OF 1

7

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4

3

2

1

4

3

2

1

APPROVED SOURCE(S) OF SUPPLY

SUPPLIER	PART NUMBER
1. EUROPEAN ANTENNAS	PA3-2460-DS45/588
2.	
3.	
4.	
5.	
6.	

REVISIONS

REV	ECN	ZONE	DESCRIPTION	DATE	DRAWN & APPROVED
A			-001 RELEASED AT REV A		

D

D

C

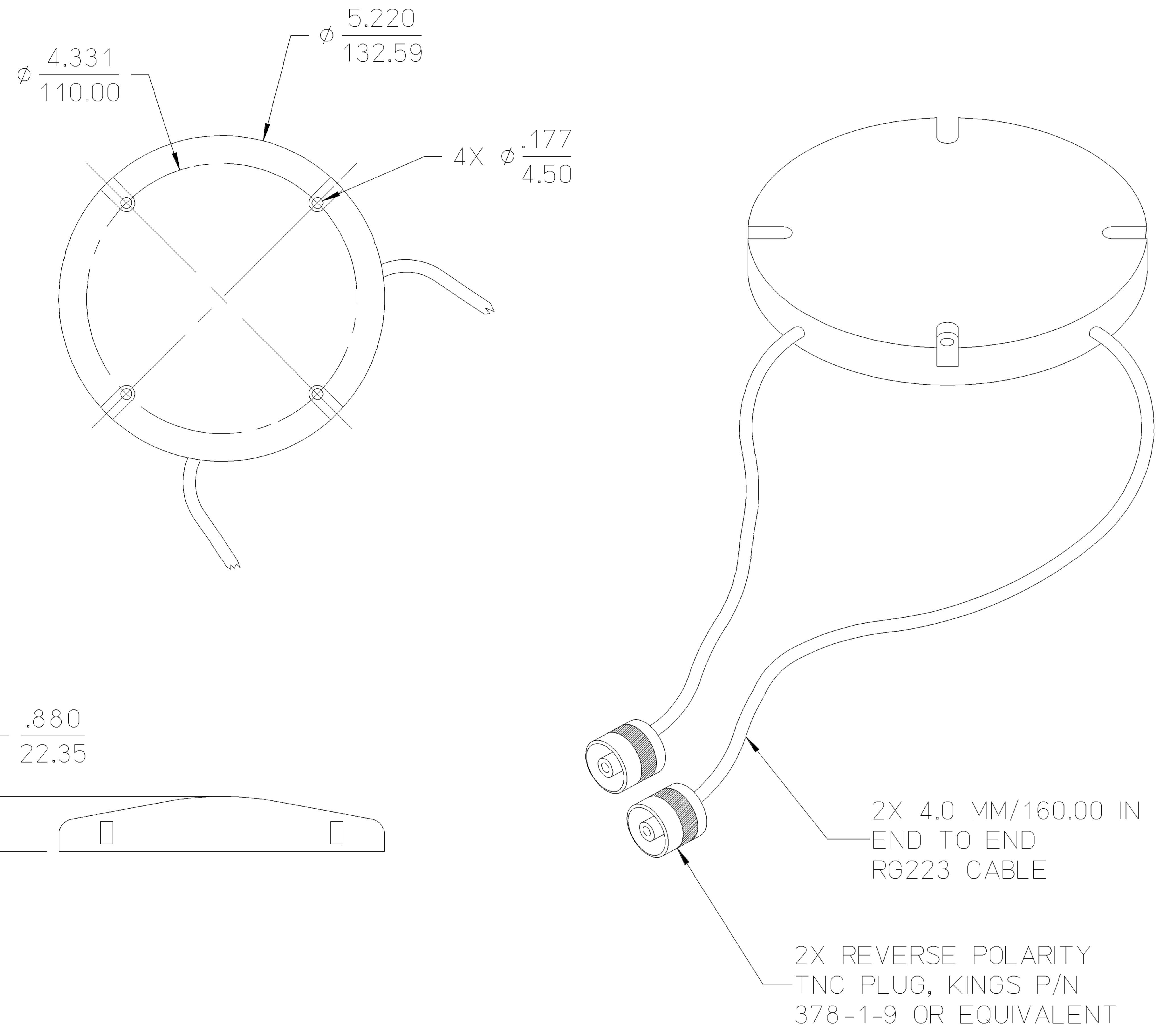
C

B

B

A

A



NOTES: UNLESS OTHERWISE SPECIFIED

- SPECIFICATIONS:
 FREQUENCY: 2.42 - 2.48 GHZ
 POLARIZATION: LINEAR ±45°
 INTER-PORT ISOLATION: 20 dB
 TEMPERATURE: -20°C TO +50°C
 RADOME: WHITE INJECTION MOLDED POLYMER
 GAIN: 4.0dBi
 BEAMWIDTH: 80° X 80°
 VSWR: 1.5 : 1
 MASS: 610g/21.5oz
 WIND LOADING: 2.24Kg/4.92lb @100MPH
 POWER RATING: 10W
 FRONT TO BACK: 20dB TYPICAL
- BAG PARTS AND MARK BAG WITH 071176 AND DASH NUMBER TO WHICH MANUFACTURED PER SPECIFICATION 606427.
- CHANGES REQUIRE SAC APPROVAL.
- DIMENSIONS: INCHES
MM

RELEASED SOURCE CONTROL DRAWING

-001

REVISION	REV STATUS OF SHEETS
5	SHEET
4	
3	
2	
1	

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CAD DB.REF- 071176.1.a SYSTEM - HP-ME10		UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		APPROVALS		DATE		 6001 36TH AVENUE WEST EVERETT, WA 98203-9280	
DRAWN G.RAVEN		9-1-00		CHECKED G.OPSTAD		9-13-00			
RESP ENG R.ZIGLER		9-14-00		QA				TITLE ANTENNA, 2.4 GHZ, DIRECT, TNC P	
MFG ENG V.LORD		9-20-00		SAC P.HELTON		9-14-00		SIZE CAGE CODE DRAWING NUMBER	
CE/ID R.KELLY		9-18-00		C 33825		071176		SCALE NONE USED ON 21XX SHEET 1 OF 1	

4

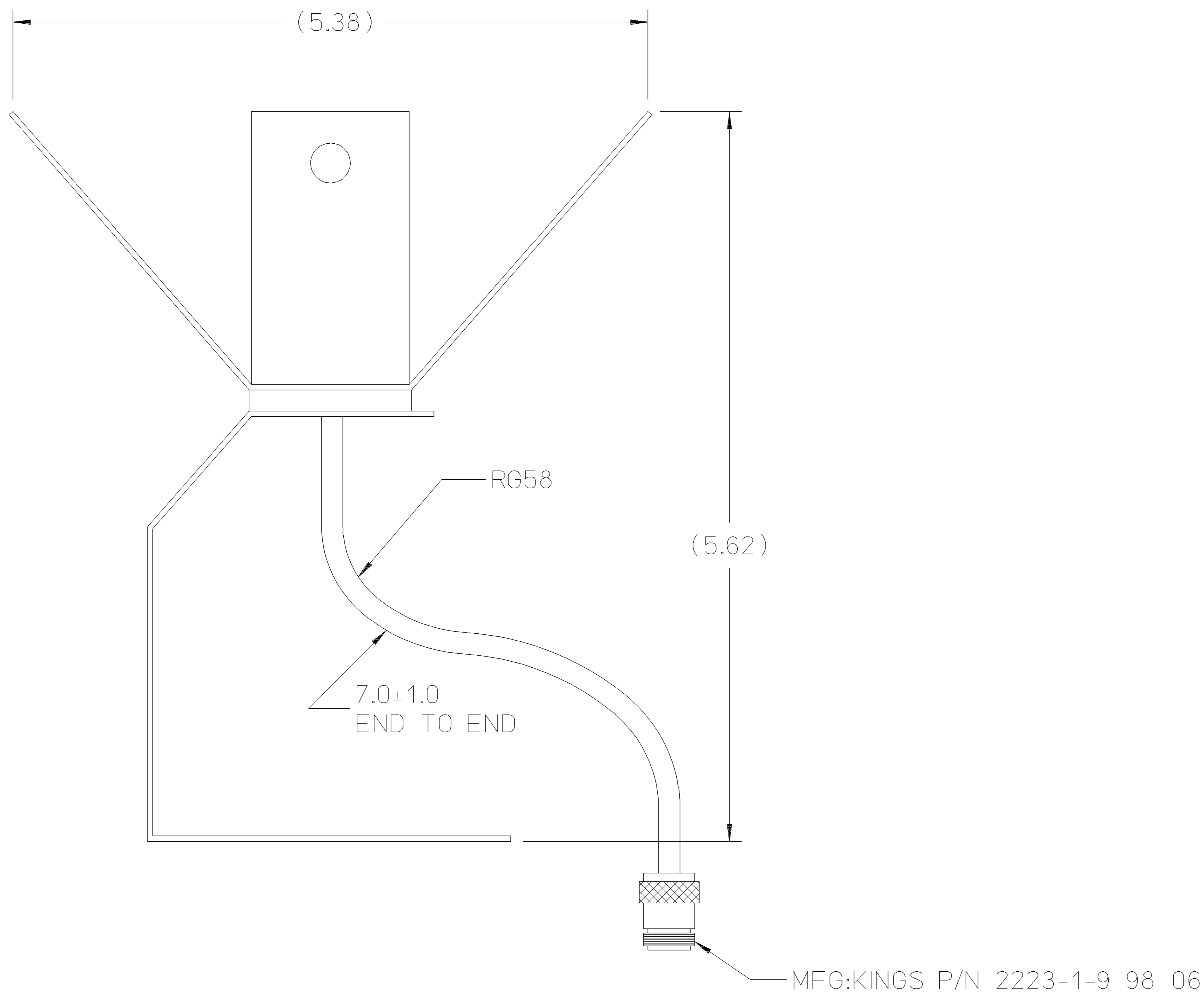
3

2

1

APPROVED SOURCE(S) OF SUPPLY	
SUPPLIER	PART NUMBER
1. MOBILE MARK	SCR9-2400I
2.	
3.	
4.	
5.	
6.	

REVISIONS					
REV	ECN	ZONE	DESCRIPTION	DATE	DRAWN & APPROVED
A			-001 RELEASED AT REV A		



- NOTES: UNLESS OTHERWISE SPECIFIED
- REFER TO THE MANUFACTURER'S SPECIFICATIONS FOR COMPLETE DESIGN PARAMETERS.
 - BAG PARTS AND MARK BAG WITH 071122 TO WHICH MANUFACTURED PER SPECIFICATION 606427. DO NOT MARK DASH NUMBER.
 - CHANGES REQUIRE SAC APPROVAL.
 - SPECIFICATIONS:
 - * FREQUENCY RANGE: 2300-2600MHZ
 - * GAIN: 9dBi
 - * VSWR: 2:1
 - * IMPEDANCE: 50 ohms
 - * BEAMWIDTH 75° VERTICAL, 65° HORIZONTAL
 - * INPUT POWER (MAX): 100 WATTS
 - ANTENNA IS SUPPLIED WITH MOUNTING KIT AND INSTRUCTION SHEET.

RELEASED

SOURCE CONTROL DRAWING

-001

REVISION	REV STATUS OF SHEETS
5	SHEET
4	
3	
2	
1	

NOTICE
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CAD DB.REF- 071122.1.a
 SYSTEM - HP-ME10

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

.X ±
 .XX ±
 .XXX ±
 ANGLES ±

APPROVALS	DATE
DRAWN G.RAVEN	8-8-00
CHECKED G.OPSTAD	8-29-00
RESP ENG R.ZIGLER	9-5-00
QA -----	-----
MFG ENG V.LORD	9-20-00
SAC O.DREW	8-31-00
CE/ID R.KELLY	9-12-00

Intermec Technologies Corporation
 6001 36TH AVENUE WEST
 EVERETT, WA 98203-9280

TITLE ANTENNA, 2.4GHZ,
 CORNER REFLECT

SIZE	CAGE CODE	DRAWING NUMBER
C	33825	071122
SCALE	NONE	USED ON 2100
		SHEET 1 OF 1

4

3

2

1

APPROVED SOURCE(S) OF SUPPLY

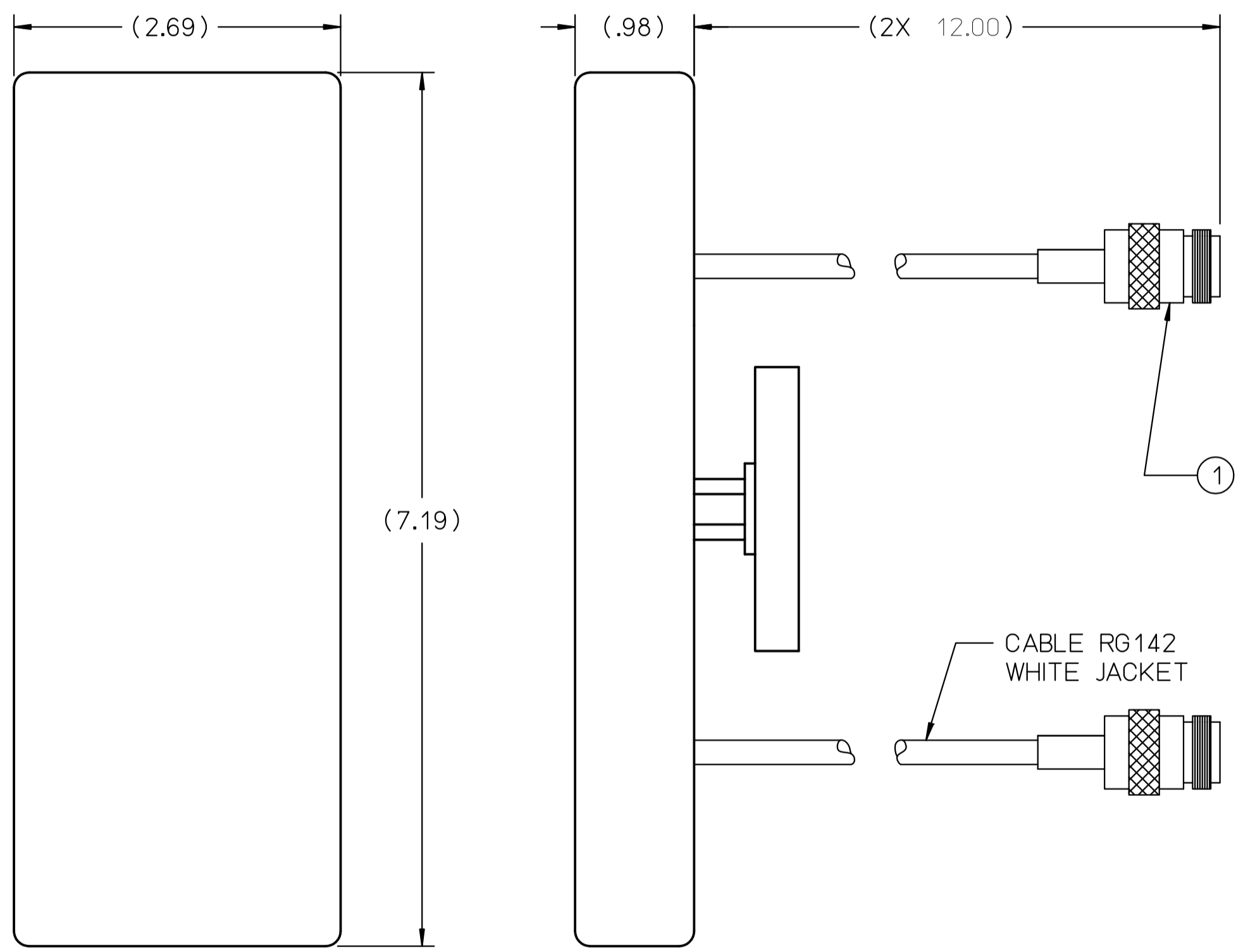
SUPPLIER	PART NUMBER
1. CENTURION INTL	CAF94137
2.	
3.	
4.	
5.	
6.	

REVISIONS

REV	ECN	ZONE	DESCRIPTION	DATE	DRAWN & APPROVED
B			-001 RELEASED AT REV B		
C	102232	D4 C2	SUPPLIER WAS XERTEX TECH REVISED NOTE 2	3-7-01	G.RAVEN GMO

D

D



NOTES: UNLESS OTHERWISE SPECIFIED

- REFER TO THE MANUFACTURER'S SPECIFICATIONS FOR COMPLETE DESIGN PARAMETERS.
- BOX PART AND MARK BOX WITH 071121 TO WHICH MANUFACTURED PER SPECIFICATION 606427. DO NOT MARK DASH NUMBER.
- CHANGES REQUIRE SAC APPROVAL.
- SPECIFICATIONS:
 - * VSWR: 2.0:1
 - * FREQUENCY: 2400-2500 MHz
 - * GAIN: 3 dBi
 - * PATTERN: OMNI-DIRECTIONAL
 - * OPERATION TEMPERATURE: -40°C TO +70°C
 - * MAXIMUM INPUT POWER: 50 WATTS

C

C

B

B

RELEASED
SOURCE CONTROL DRAWING
SEE SEPARATE PARTS LIST

A

A

-001

REVISION	REV STATUS OF SHEETS
5	SHEET
4	
3	
2	
1	

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- 071121.1.c
SYSTEM - HP-ME10

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

.X ±
.XX ±
.XXX ±
ANGLES ±

APPROVALS	DATE
DRAWN G.RAVEN	8-8-00
CHECKED G.OPSTAD	8-18-00
RESP ENG R.ZIGLER	9-5-00
QA	
MFG ENG V.LORD	9-20-00
SAC O.DREW	8-30-00
CE/ID R.KELLY	8-29-00

Intermec Technologies Corporation
6001 36TH AVENUE WEST
EVERETT, WA 98203-9280

TITLE **ANTENNA, DIVERSITY, OMNI, 3 DBI**

SIZE	CAGE CODE	DRAWING NUMBER
C	33825	071121

SCALE NONE USED ON 2100 SHEET 1 OF 1

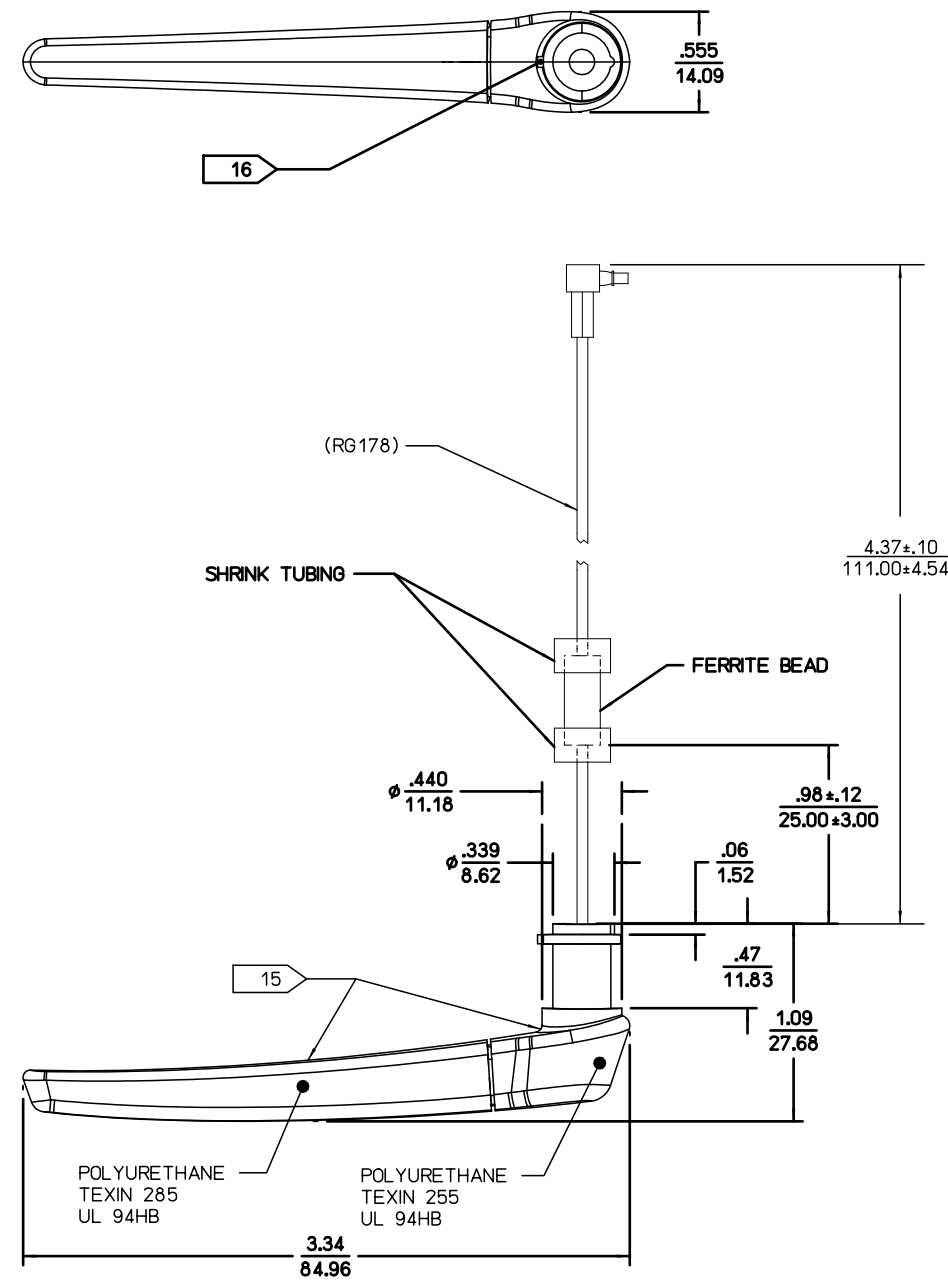
4

3

2

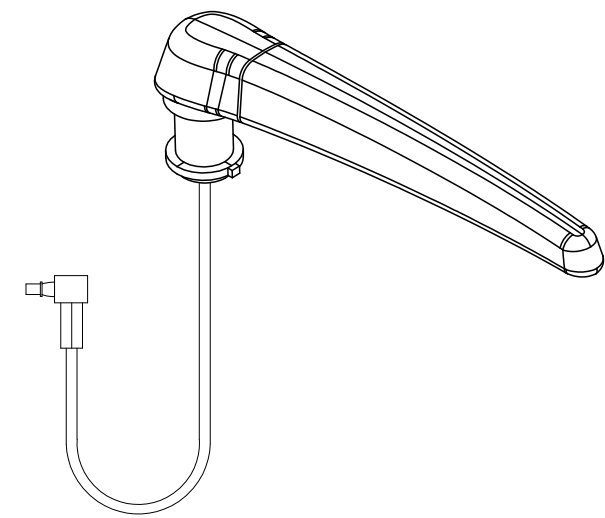
1

REVISIONS					REVISION	REV STATUS OF SHEETS	REV	DESCRIPTION	DATE	DRAWN & APPROVED
5	4	3	2	1	SHEET	D	-001 RELEASED AT REV D			
						E	-001 PER ECN 102394	4-26-01	G.OPSTAD	GAR



- NOTES CONTINUED:
- SEE CAD GENERATED WIRE FRAME AND/OR SOLID MODEL PART NUMBER 070143-001 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.
 - CONNECTOR TO BE RADIAL P/N R299.792.107 RIGHT ANGLE.
 - COLOR TO MATCH INTERMEC BLACK COLOR CHIP, ITEM 1.
 - NO TEXTURE ON THESE SURFACES.
 - BAG PARTS AND MARK BAG WOTH 070143 AND DASH NUMBER TO WHICH MANUFACTURED PER SPECIFICATION 606427.
 - FLAME RATING: UL 94HB MINIMUM.
 - DIMENSIONS: INCHES
MM

- NOTES: UNLESS OTHERWISE SPECIFIED
- FILLETS AND EDGE RADII TO BE R .015/0.38 MAXIMUM.
 - DIMENSIONS APPLY AT MAXIMUM DRAFT.
 - EJECTOR PIN FLASH .010/0.25 MAXIMUM.
 - 25% REGRIND PERMISSIBLE PROVIDED SUCH MATERIAL IS GRADED CLEAN, FINES REMOVED AND FREE OF BURNED, DISCOLORED OR FOREIGN MATERIAL.
 - COSMETIC REQUIREMENTS PER SPECIFICATION 044856, APPENDIX 'A', CATEGORY II, CLASS A (EXTERNAL SURFACES ONLY).
 - EXTERIOR SURFACE PER MOLD-TECH MT-11020 OR EQUIVALENT.
 - SPECIFICATIONS:
FREQUENCY RANGE: 2.4 - 2.5 GHz.
GAIN: +1.5 DBI PEAK.
IMPEDANCE: 50 OHMS.
VSWR: ACROSS THE BAND <1.50:1 NOMINAL.
POWER RATING: 1 WATT MAXIMUM.
OPERATING TEMPERATURE: -40°C TO 65°C @ 95% RH.
 - MECHANICAL REQUIREMENTS:
FLEX PERFORMANCE (SHEATH): 500 CYCLES AT 45° IN TWO DIRECTIONS PERPENDICULAR TO THE CENTERLINE AXIS OF THE SHAFT.
SHEATH PULL TEST: 30 LB.
CORROSION TEST: 24 HOURS WITH 5% NaCl @ 85°C.
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.
 - PARTING LINE FLASH .005/0.13 MAXIMUM. PARTING LINE LOCATION TO BE APPROVED BY INTERMEC ENGINEERING.
 - GATE REMNANT .020/0.51 MAXIMUM. GATING LOCATION TO BE APPROVED BY INTERMEC ENGINEERING.
 - PART TO BE FREE OF MOLD RELEASE.
 - CHANGES REQUIRE SAC APPROVAL.
- NOTES CONTINUED TO THE LEFT



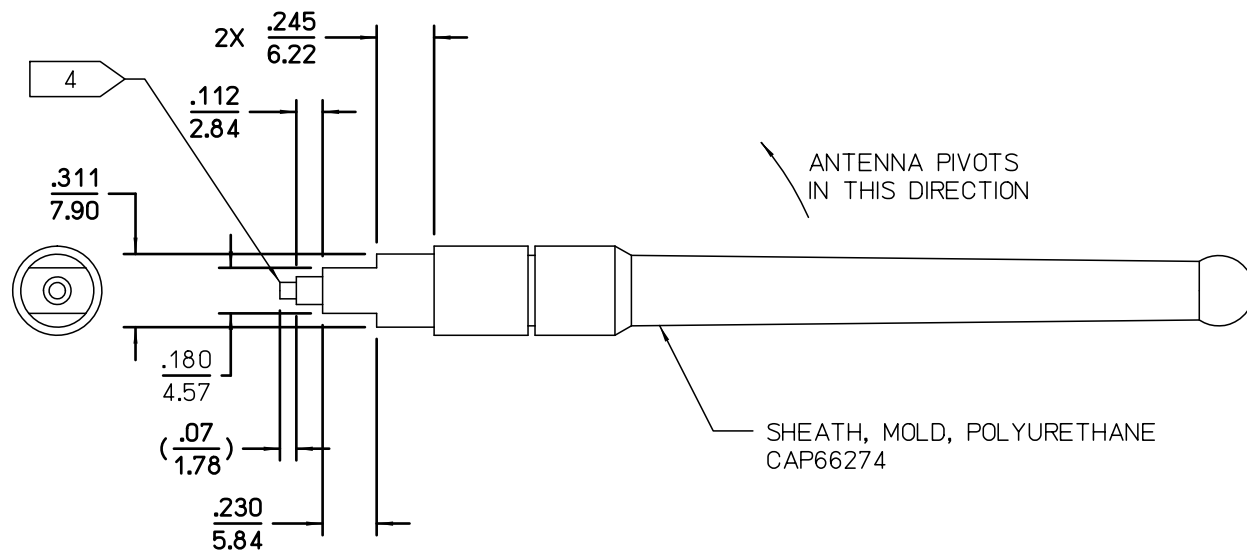
SEE SEPARATE PARTS LIST FOR 070143-001

NOTICE
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CAD DBREF- 070143.1.e SYSTEM - HP		APPROVALS		DATE	 6001 36TH AVENUE WEST EVERETT, WA 98203-9280
DRAWN	JFOTI	DATE		04-10-00	
CHECKED	G.OPSTAD	DATE		6-2-00	
RESP ENG	B.STEFFEN	DATE		6-6-00	
QA		DATE			
MFG ENG	M.SALATINO	DATE		6-9-00	
SAC	P.HELTON	DATE		6-6-00	
CE/ID		DATE			
TITLE		SIZE	CAGE CODE	DRAWING NUMBER	REV
ANTENNA, ROTATION, RADIALL		D	33825	070143	E
SCALE		SHEET		1 OF 1	
2/1		GAR			

-001

					REVISION	REV STATUS OF SHEETS	REVISIONS			
5	4	3	2	1	SHEET		REV	DESCRIPTION	DATE	DRAWN & APPROVED
							C	-001 RELEASED AT REV C		
							D	-001 PER ECN 101421	02-18-00	G.OPSTAD GAR
							E	-001 PER ECN 101455	3-8-00	G.RAVEN GMO
							F	-001 PER ECN 102394	4-27-01	G.OPSTAD GAR



NOTES: UNLESS OTHERWISE SPECIFIED

- SPECIFICATIONS:
 FREQUENCY RANGE: 2.4 - 2.5 GHZ
 GAIN: +1.5 DBI PEAK
 IMPEDANCE: 50 OHMS
 VSWR: ACROSS THE BAND , 1.5:1
 POWER RATING: 1 WATT MAXIMUM
 OPERATING TEMPERATURE: -40°C TO 65°C @ 95% RH
- MECHANICAL REQUIREMENTS:
 FLEX PERFORMANCE (SHEATH): 500 CYCLES AT 45° IN TWO DIRECTIONS PERPENDICULAR TO THE CENTERLINE AXIS.
- 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.
- CONNECTOR TO BE RADIALL STRAIGHT, P/N R299790020
- ANTENNA COLOR TO BE BLACK.
- COSMETIC REQUIREMENTS PER SPECIFICATION 044856, APPENDIX 'A', CATEGORY II, CLASS A.
- BAG PARTS AND MARK BAG WITH 069903 AND DASH NUMBER TO WHICH MANUFACTURED PER SPECIFICATION 606427.
- CHANGES REQUIRE SAC APPROVAL.
- DIMENSIONS: INCHES
MM

CAD DB.REF- 069903.1.f
 SYSTEM - HP

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

.XX ±
 .XXX ± .010/0.25
 ANGLES ±

	APPROVALS	DATE
DRAWN	J.FOTI	7-2-99
CHECKED	R.HOAGLUND	7-9-99
RESP ENG	R.ZIGLER	7-20-99
QA	R.WOJTULEWICZ	9-21-99
MFG ENG	R.ODEKIRK	9-24-99
SAC	P.HELTON	9-17-99
CE/ID		



6001 36TH AVENUE WEST
 EVERETT, WA 98203-9280

TITLE
**ANTENNA, 2.4 GHZ,
 OMNI, SWIVEL, RADIALL**

SIZE	CAGE CODE	DRAWING NUMBER	REV
C	33825	069903	F
SCALE	2/1		SHEET 1 OF 1

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-001

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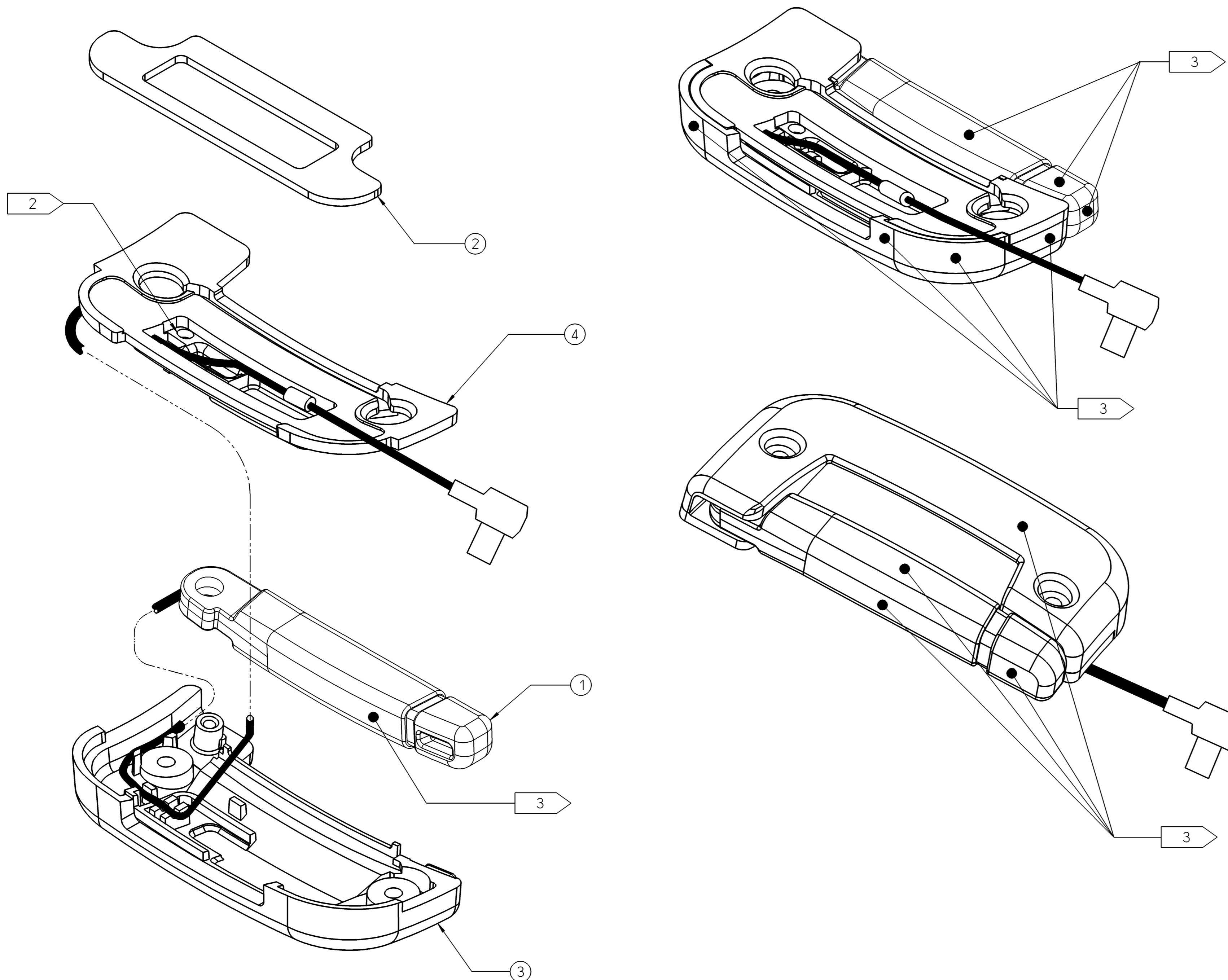
2

1

REVISION		REVISIONS		
REV	DESCRIPTION	DATE	DRAWN & APPROVED	
F	-001 RELEASED AT REV F			
G	-002 PER ECN 100483 SEE PARTS LIST	6-21-99	D. GOIN	JJF
H	-002 PER ECN 100587 SEE PARTS LIST	6-22-99	D. GOIN	JJF
J	-002 PER ECN 100757	07-29-99	R.HOAGLUND	DDG

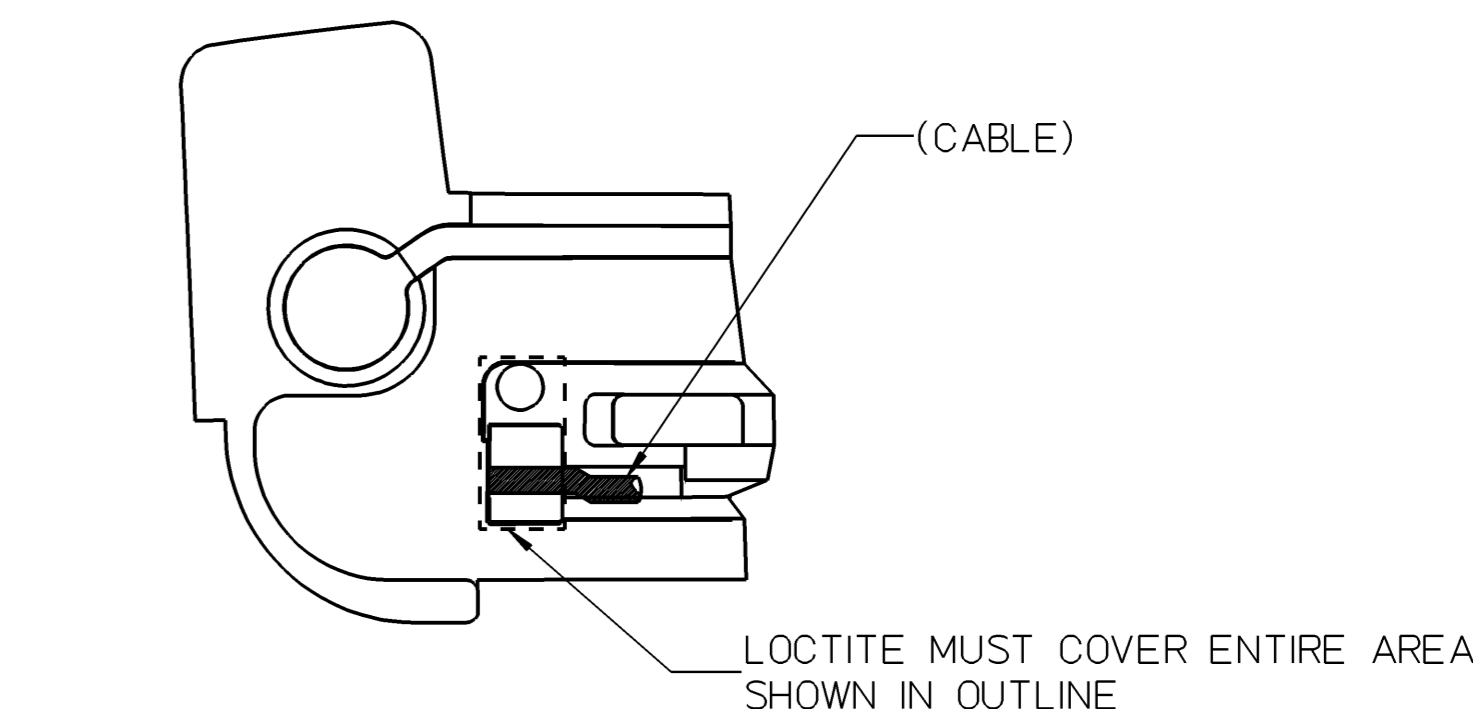
D

D



NOTES: UNLESS OTHERWISE SPECIFIED

- REAR DOOR, ITEM 4 ULTRASONICALLY WELDED TO FRONT DOOR, ITEM 3.
- FILL CAVITY FOR CABLE SEAL USING LOCKTITE 5140. REF: LOCTITE DISPENSER SET AT .40 SECONDS AT 20 PSI. SEE DETAIL "A".
- COSMETIC REQUIREMENTS PER SPECIFICATION 044856, APPENDIX "A", CATEGORY II, CLASS A.
- BAG PARTS (MAXIMUM 25 PER BAG) AND MARK BAG WITH 067325 AND DASH NUMBER TO WHICH MANUFACTURED PER SPECIFICATION 606427.
- CHANGES REQUIRE SAC APPROVAL.
- SEE ANTENNA, ITEM 1 DRAWING FOR SPECIFIC ANTENNA PERFORMANCE SPECIFICATIONS.



DETAIL A


SEE SEPARATE PARTS LIST FOR 067325-002

A

A

-002

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CAD DB.REF- 067325.1.j SYSTEM - HP/SD		APPROVALS		DATE	 6001 36TH AVENUE WEST EVERETT, WA 98203-9280	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		DRAWN	V.REKSTINS	11-17-98	TITLE DOOR/ANTENNA ASSY, PCMCIA	
.XX ±		CHECKED	R.HOAGLUND	4-27-99		
.XXX ±		RESP ENG	R.ZIGLER	4-28-98	SIZE	CAGE CODE
ANGLES ±		QA	J.GUTIERREZ	4-30-99	D	33825
		MFG ENG	JTSUJ	4-28-99	DRAWING NUMBER	067325
		SAC	P.HELTON	4-29-99	REV	J
					SCALE	NONE
					SHEET 1 OF 1	

7

6

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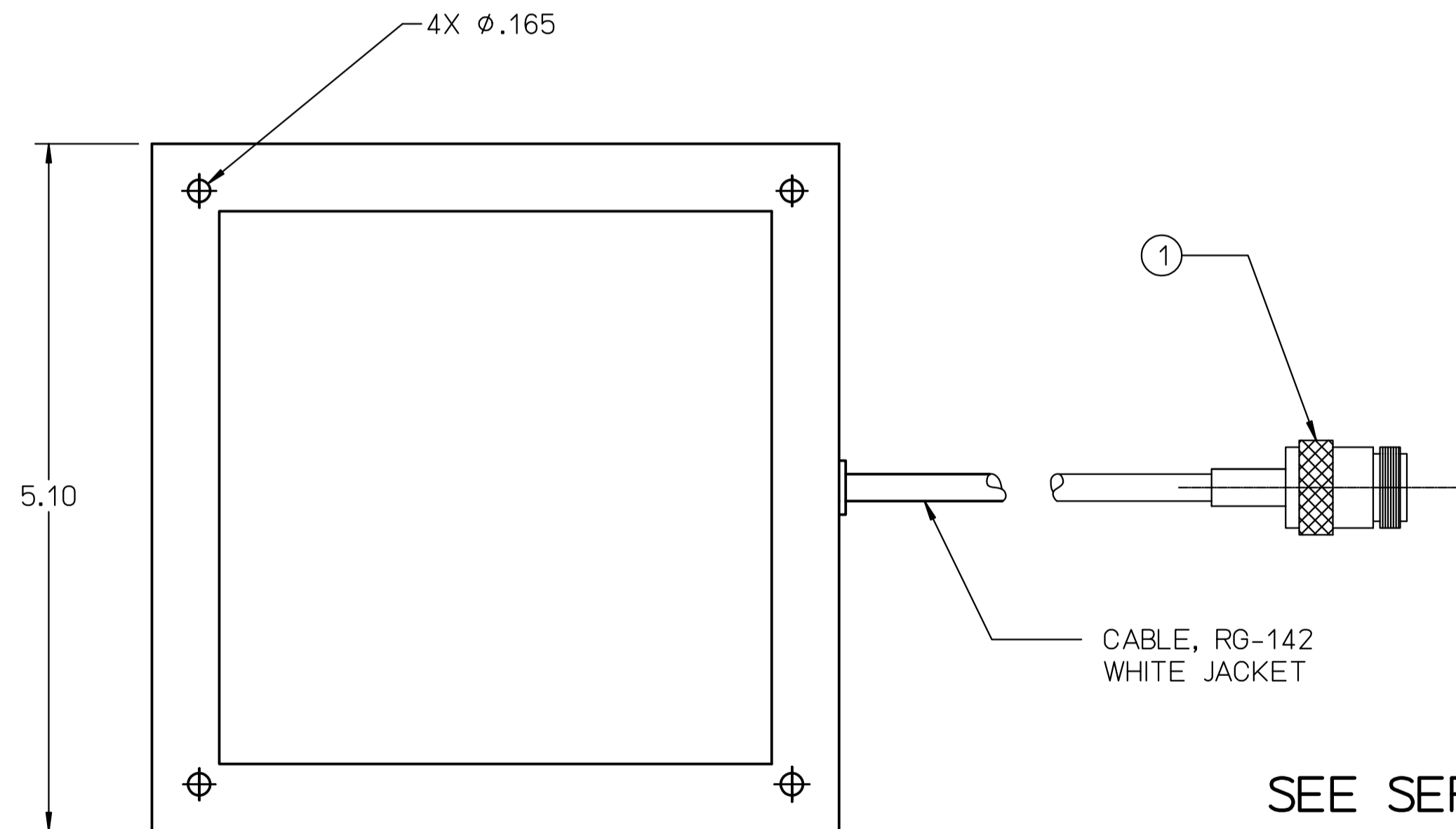
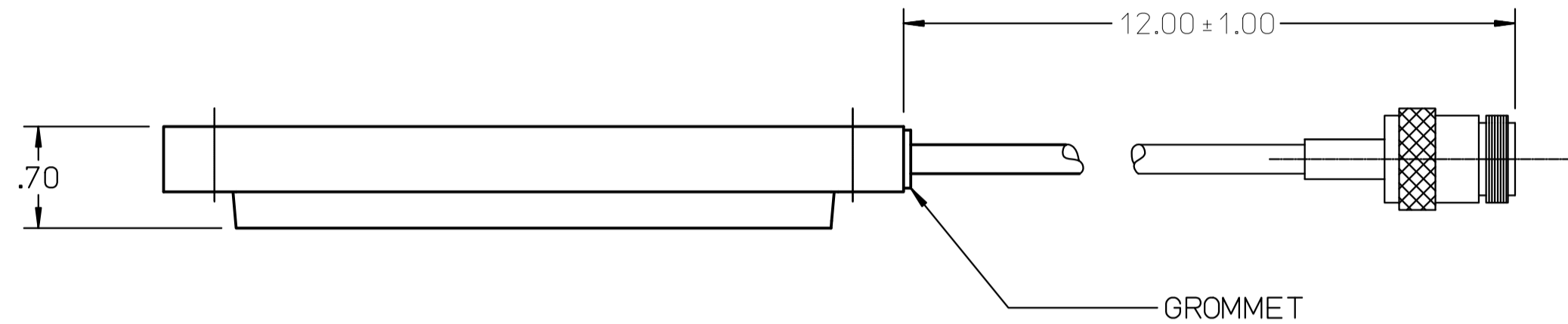
3

2

1

APPROVED SOURCE(S) OF SUPPLY	
SUPPLIER	PART NUMBER
1. CENTURION INTL	CAF95972
2.	
3.	
4.	
5.	
6.	

REVISIONS			
REV	DESCRIPTION	DATE	DRAWN & APPROVED
B	-001 RELEASED AT REV B		
C	-001 PER ECN 102232	3-7-01	G.RAVEN GMO



NOTES: UNLESS OTHERWISE SPECIFIED

- REFER TO THE MANUFACTURER'S SPECIFICATIONS FOR COMPLETE DESIGN PARAMETERS.
- BAG PARTS AND MARK BAG WITH 067263 TO WHICH MANUFACTURED PER SPECIFICATION 606427. DO NOT MARK DASH NUMBER.
- CHANGES REQUIRE SAC APPROVAL.
- SPECIFICATIONS:
 - * FREQUENCY RANGE: 2400-2500MHZ
 - * GAIN: 9dBi
 - * VSWR: 1.5:1
 - * IMPEDANCE: 50 ohms
 - * BEAMWIDTH 9dB
 - H-PLANE: 60°
 - E-PLANE; 60°
 - * INPUT POWER (MAX): 50 WATTS
 - * OPERATING TEMPERATURE: -40°C TO +100°C
 - * FRONT/BACK RATIO: 20 dBi
- MOUNTING KIT SUPPLIED.

SOURCE CONTROL DRAWING
SEE SEPARATE PARTS LIST FOR 067263-001

-001

NOTICE

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CAD DB.REF- 067263.1.c SYSTEM - HP/ME30		
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.	APPROVALS	DATE
.XX ± .12	DRAWN J.FOTI	5-12-98
.XXX ± .015	CHECKED R.HOAGLUND	5-21-98
ANGLES ±	RESP ENGM.SHAVER	6-2-98
	QA T.ANDERSON	6-2-98
	MFG ENG M.SALATINO	5-26-98
	SAC P.HELTON	5-21-98
	CMPNT ENG T.KEY	5-27-98

Intermec Technologies Corporation		6001 36TH AVENUE WEST EVERETT, WA 98203-9280	
TITLE ANTENNA, 2.4GHZ, 9dBi FLAT PANEL			
SIZE	CAGE CODE	DRAWING NUMBER	REV
C	33825	067263	C
SCALE	NONE		SHEET 1 OF 1

4

3

2

1

APPROVED SOURCE(S) OF SUPPLY

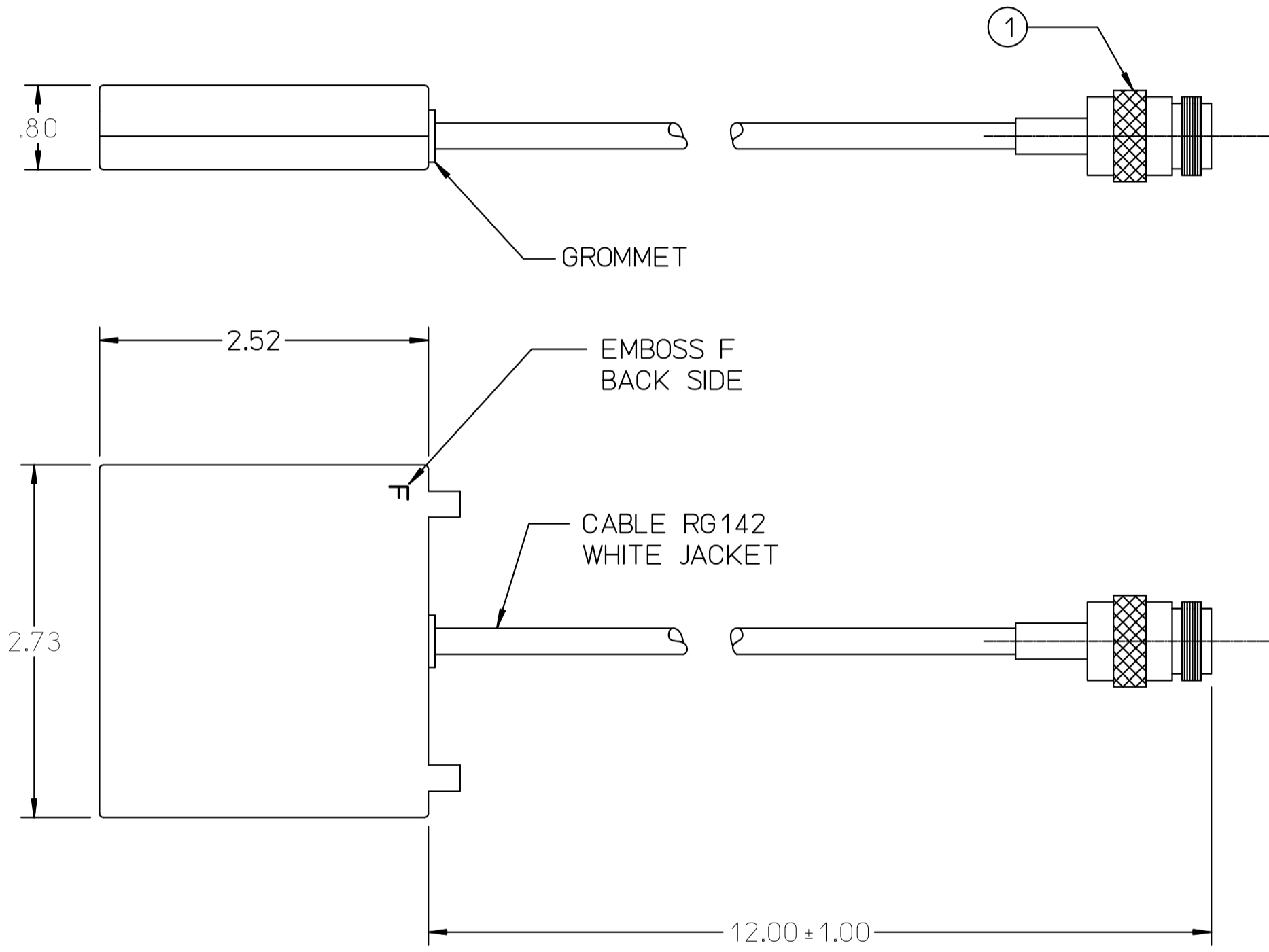
SUPPLIER	PART NUMBER
1. CENTURION INTL	CAF95989
2.	
3.	
4.	
5.	
6.	

REVISIONS

REV	DESCRIPTION	DATE	DRAWN & APPROVED
B	-001 RELEASED AT REV B		
C	-001 PER ECN 102232	3-7-01	G.RAVEN GMO

D

D



C

C

B

B

NOTES: UNLESS OTHERWISE SPECIFIED

- REFER TO THE MANUFACTURER'S SPECIFICATIONS FOR COMPLETE DESIGN PARAMETERS.
- BAG PARTS AND MARK BAG WITH 067262 TO WHICH MANUFACTURED PER SPECIFICATION 606427. DO NOT MARK DASH NUMBER.
- CHANGES REQUIRE SAC APPROVAL.
- SPECIFICATIONS:
 - * FREQUENCY RANGE: 2400-2500 MHz
 - * GAIN: 5dBi
 - * VSWR: 1.8:1
 - * IMPEDANCE: 50ohms
 - * BEAMWIDTH 5 dB
 - H-PLANE: 55°
 - E-PLANE: 80°
 - * OPERATING TEMPERATURE: -40°C TO +100°C
 - * INPUT POWER (MAX): 50 WATTS
- MOUNTING KIT SUPPLIED.

SOURCE CONTROL DRAWING

SEE SEPARATE PARTS LIST FOR 067262-001

A

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-001

NOTICE

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CAD DB.REF- 067262.1.c SYSTEM - HP/ME30		UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		APPROVALS		DATE	 6001 36TH AVENUE WEST EVERETT, WA 98203-9280 TITLE ANTENNA, 2.4GHZ, 5dBi DUAL FLAT PANEL	
DRAWN	J.FOTI	5-11-98	.XX ± .12	CHECKED	R.HOAGLUND	5-21-98		
RESP ENGM.	SHAVER	6-2-98	.XXX ±	QA	T.ANDERSON	6-2-98		
MFG ENG	M.SALATINO	5-26-98	ANGLES ±	CAGE CODE	33825	DRAWING NUMBER		067262
SAC	P.HELTON	5-26-98		REV	C			
CMPNT ENG	T.KEY	5-27-98		SCALE	NONE	SHEET		1 OF 1

4

3

2

1

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2

1

APPROVED SOURCE(S) OF SUPPLY

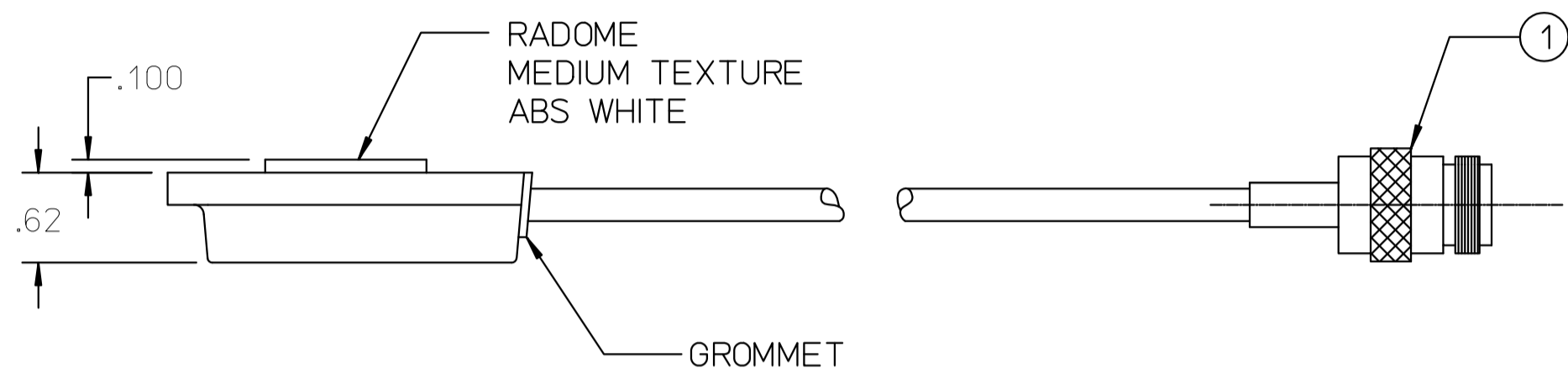
SUPPLIER	PART NUMBER
1. CENTURION INTL	CAF94120
2.	
3.	
4.	
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REVISIONS

REV	DESCRIPTION	DATE	DRAWN & APPROVED
B	-001 RELEASED AT REV B		
C	-001 PER ECN 102232	3-7-01	G.RAVEN GMO

D

D

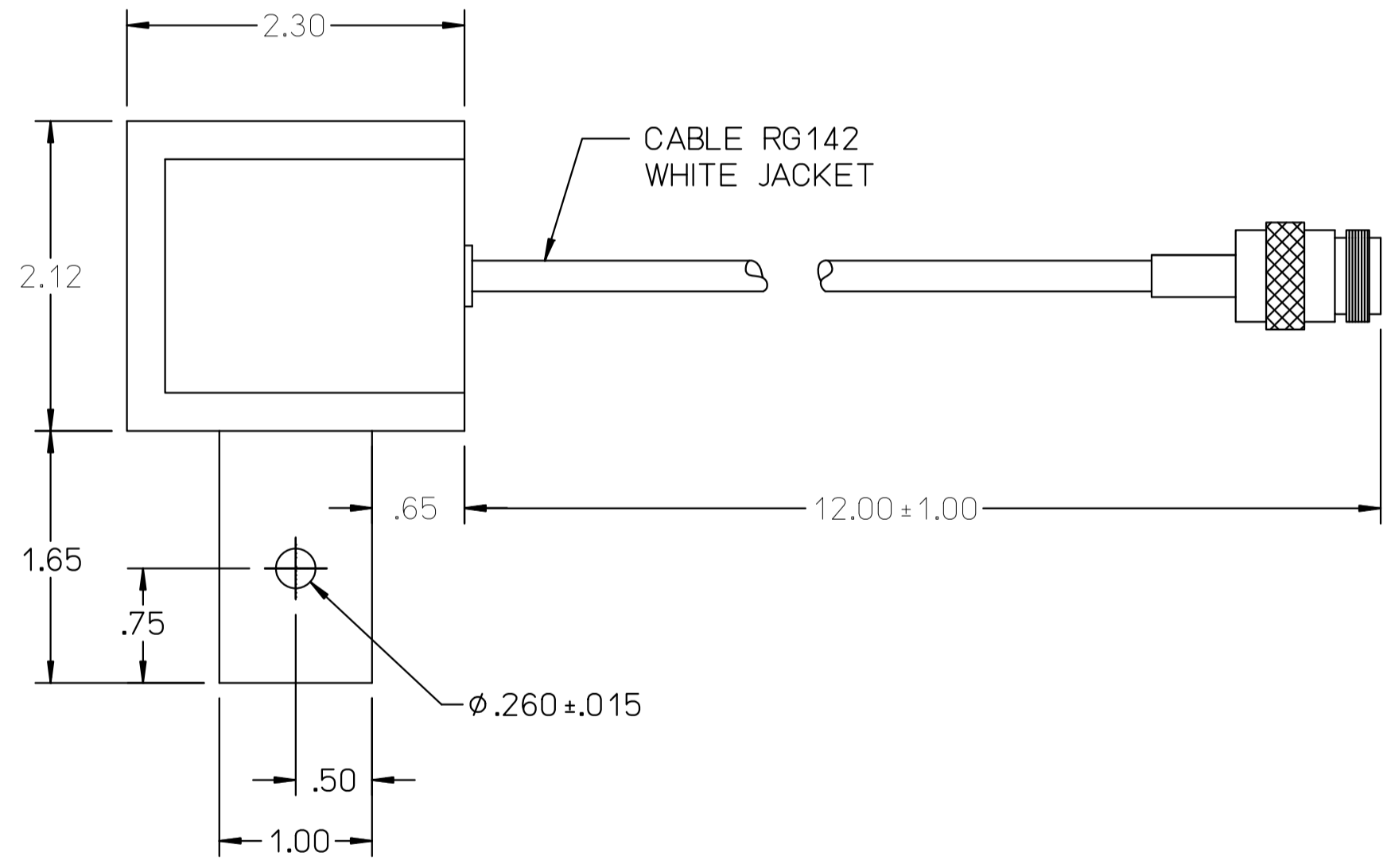


NOTES: UNLESS OTHERWISE SPECIFIED

- REFER TO THE MANUFACTURER'S SPECIFICATIONS FOR COMPLETE DESIGN PARAMETERS.
- BAG PARTS AND MARK BAG WITH 067261 TO WHICH MANUFACTURED PER SPECIFICATION 606427. DO NOT MARK DASH NUMBER.
- CHANGES REQUIRE SAC APPROVAL.
- SPECIFICATIONS:
 - * VSWR: 1.5:1
 - * FREQUENCY: 2400-2500 MHz
 - * GAIN: 3 dBi
 - * BEAMWIDTH 3dB
 - H-PLANE 360°
 - E-PLANE 180°
 - * PATTERN: OMNI-DIRECTIONAL
 - * OPERATION TEMPERATURE: -40°C TO +100°C
 - * MAXIMUM INPUT POWER: 50 WATTS
- MOUNTING KIT SUPPLIED.

C

C



B

B

SOURCE CONTROL DRAWING

SEE SEPARATE PARTS LIST FOR 067261-001


A

A

-001

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CAD DB.REF- 067261.1.c SYSTEM - HP/ME30		UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		APPROVALS		DATE	 6001 36TH AVENUE WEST EVERETT, WA 98203-9280
DRAWN	J.FOTI	5-11-98	.XX ± .12	CHECKED	R.HOAGLUND	5-21-98	
RESP ENGM.	SHAVER	6-2-98	.XXX ±	QA	T.ANDERSON	6-2-98	
MFG ENGM.	SALATINO	5-26-98	ANGLES ±	TITLE			
SAC	P.HELTON	5-26-98	ANTENNA, 2.4GHZ, 3dBI MINI OMNI				
CMPNT ENG	T.KEY	5-27-98	SIZE	CAGE CODE	DRAWING NUMBER	REV	
			C	33825	067261	C	
			SCALE	NONE	SHEET 1 OF 1		

4

3

2

1

4

3

2

1

APPROVED SOURCE(S) OF SUPPLY

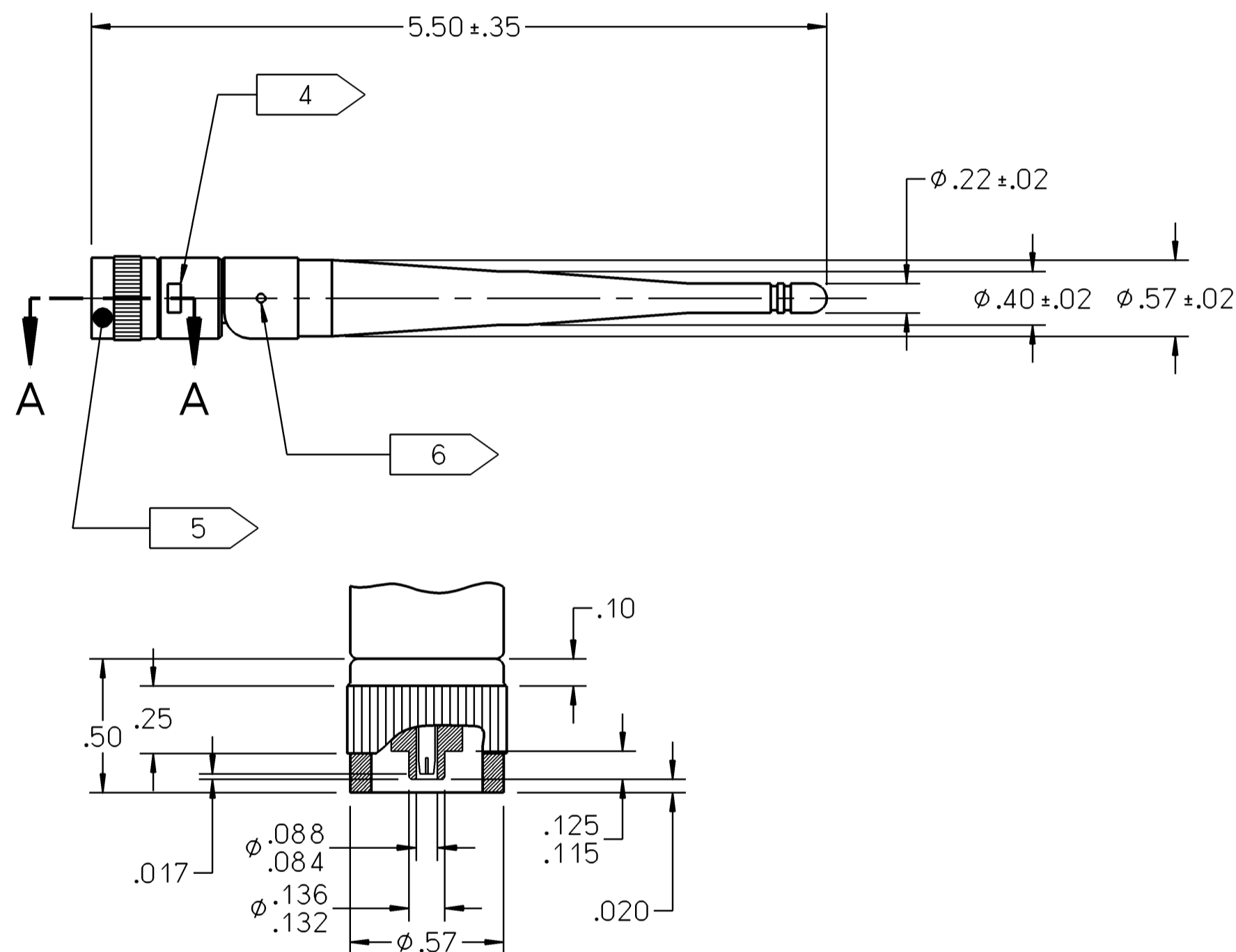
SUPPLIER	PART NUMBER
1. CENTURION	066147-001
2.	
3.	
4.	
5.	
6.	

REVISIONS

REV	DESCRIPTION	DATE	DRAWN & APPROVED
B	-001 RELEASED AT REV B		
C	-001 PER ECN 027276	03-07-98	J.LEE RCH
D	-001 PER ECN 100361	04-09-99	J.LEE JMB

NOTES: UNLESS OTHERWISE SPECIFIED

- BAG PARTS (25 MAX PER BAG) AND MARK BAG WITH 066147 AND DASH NUMBER TO WHICH MANUFACTURED PER SPECIFICATION 606427.
 - SPECIFICATIONS: FREQUENCY RANGE 2.4-2.5 GHZ
GAIN: 1.0 dBI
OPERATING TEMPERATURE: -40°C TO +85°C
FLEX TEST: PER QEA0014
PULL TEST: 20 LB LINEAR PULL
TORQUE TEST: 20 IN-LB
POWER RATING: 50 WATTS
VSWR 1.5:1 MAX AT RESONANCE
 - CHANGES REQUIRE SAC APPROVAL.
- 4 PART MARKED WITH AØ1.
- 5 THIS PIECE IS FREE TO ROTATE 360°.
- 6 FREE TO ROTATE 90° (DOWNWARD) ABOUT THIS PIVOT. LOCKS IN 0° AND 90° POSITION.
7. ALL PARTS OF ASSEMBLY ARE TO BE MOLDED BLACK OR BLACK CHROME.



SECTION A-A

SCALE 2/1

-001

NOTICE

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SOURCE CONTROL DRAWING

CAD DB.REF- 066147.1.d
SYSTEM - HP/ME30

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

.XX ± .03

.XXX ± .010

ANGLES ±

APPROVALS	DATE
DRAWN G.RAVEN	7-11-97
CHECKED R.HOAGLUND	10-29-97
RESP ENG T.BENSON	10-30-97
QA T.ANDERSON	11-10-97
MFG ENG V.LORD	11-6-97
SAC O.DREW	10-30-97
CMPNT ENG R.KELLY	11-4-97

Intermec

6001 36TH AVENUE WEST
EVERETT, WA 98203-9280

TITLE ANTENNA, TNC, 2.4 GHZ,
DIPOLE, 248X

SIZE	CAGE CODE	DRAWING NUMBER	REV
C	33825	066147	D

SCALE 1/1 SHEET 1 OF 1

4

3

2

1

D

D

C

C

B

B

A

A

7

6

5

4

3

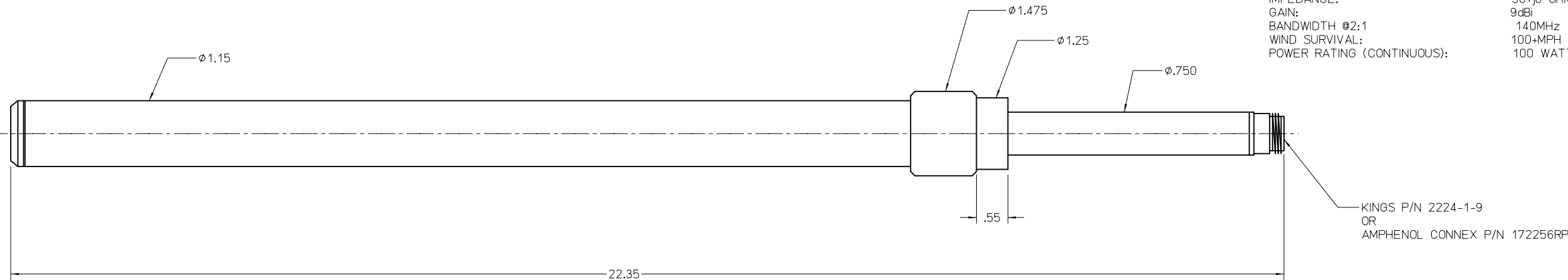
2

1

APPROVED SOURCE(S) OF SUPPLY	
SUPPLIER	PART NUMBER
1. MOBILE MARK	OD9-2400I
2.	
3.	
4.	
5.	
6.	

REVISIONS			
REV	DESCRIPTION	DATE	DRAWN & APPROVED
B	-001 RELEASED AT REV B		
C	-002 PER ECN 103659	3-31-03	G.OPSTAD GAR

- NOTES: UNLESS OTHERWISE SPECIFIED
- MATERIAL: ANTENNA - FIBERGLASS RADOME WITH ALUMINUM FEED.
HARDWARE - 4 EACH U BOLTS (NOT SHOWN)
1 EACH MOUNTING PLATE (NOT SHOWN)
 - REMOVE ALL BURRS AND SHARP EDGES.
 - COSMETIC REQUIREMENTS PER SPECIFICATION 044856,
APPENDIX C, CATEGORY II, CLASS B.
 - BAG PARTS AND MARK BAG WITH 065349 PER SPECIFICATION
606427. DO NOT MARK DASH NUMBER.
 - CHANGES REQUIRE SAC APPROVAL.
 - SPECIFICATION:
FREQUENCY RANGE: 2300-2600MHz
IMPEDANCE: 50+j0 OHMS (NOMINAL)
GAIN: 9dBi
BANDWIDTH @2:1 140MHz
WIND SURVIVAL: 100+MPH
POWER RATING (CONTINUOUS): 100 WATTS MAX



KINGS P/N 2224-1-9
OR
AMPHENOL CONNEX P/N 172256RP

-002

SOURCE CONTROL DRAWING

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CAD DB:REF- 065349.1.c SYSTEM - HP/ME30		APPROVALS		DATE	Intermec 6001 36TH AVENUE WEST EVERETT, WA 98203-9280
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		DRAWN	J.FOTI	12-19-96	
.XX ±	.20	CHECKED	R.HOAGLUND	1-28-97	TITLE ANTENNA, 2.4GHZ, 9DBI OMNI
.XXX ±	.100	RESP ENG	M.CHIN	1-28-97	
ANGLES ±		QA	R.SLOVEK	1-29-97	SIZE CAGE CODE DRAWING NUMBER D 33825 065349
		MFG ENG	M.SALATINO	1-28-97	
		SAC	KEX	1-28-97	REV C
		COMPNT ENGS.	L.OOMIS	1-28-97	SCALE NONE SHEET 1 OF 1

7

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2

1

APPROVED SOURCE(S) OF SUPPLY

SUPPLIER	PART NUMBER
1. CENTURION	CAF28792
2.	
3.	
4.	
5.	
6.	

REVISION		REV STATUS OF SHEETS		REVISIONS		
REV	DESCRIPTION	DATE	DRAWN & APPROVED			
D	-004 PER ECN 025701 SEE SEPARATE PARTS LIST	8-12-96	G.RAVEN	RCH		
E	-005 PER ECN 025912 SEE SEPARATE PARTS LIST	10-18-96	G.RAVEN	RCH		
F	-005 PER ECN 025919 SEE SEPARATE PARTS LIST	10-18-96	G.RAVEN	RCH		
G	-005 PER ECN 027129	1-16-98	G.OPSTAD	RCH		

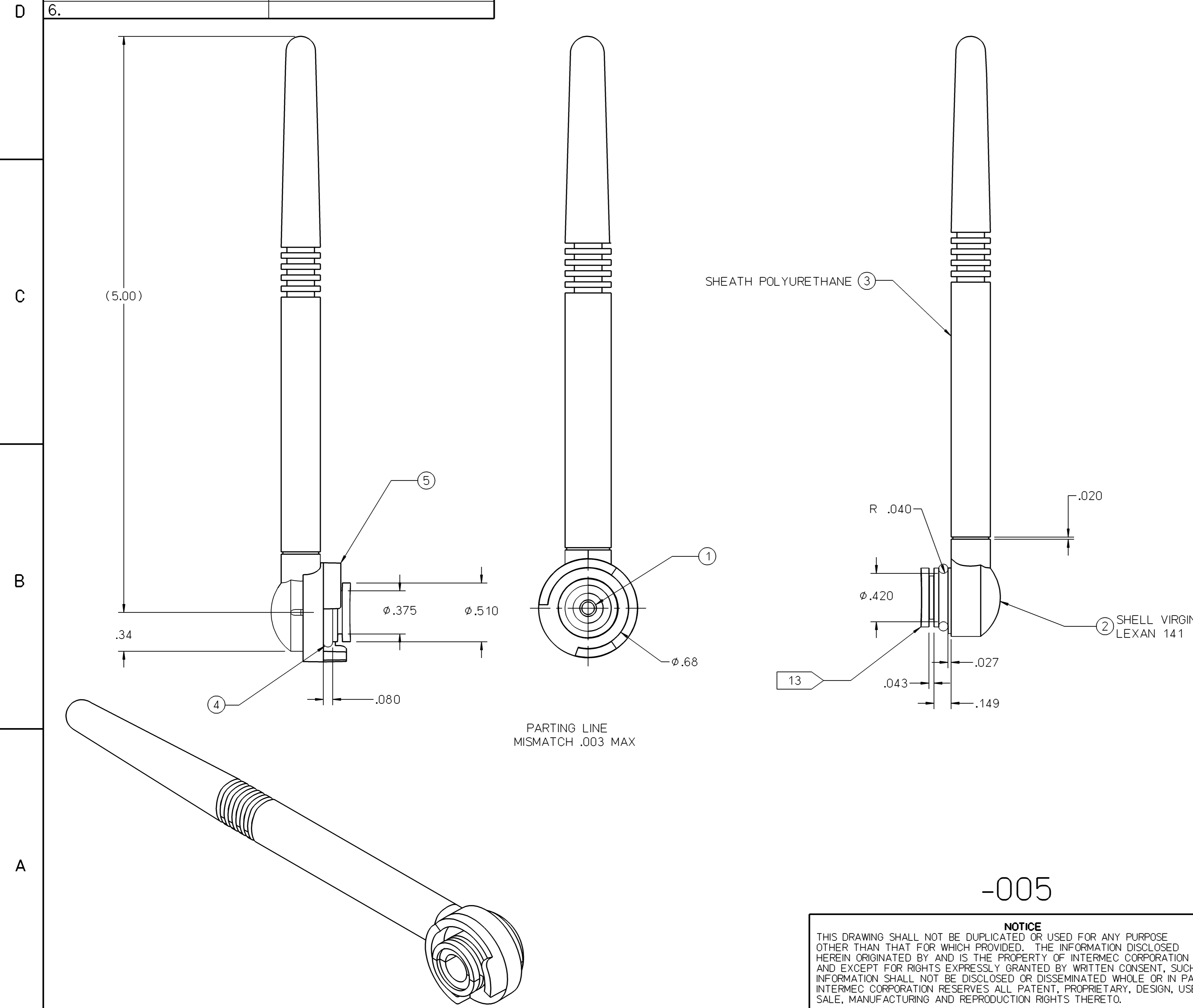
NOTES: UNLESS OTHERWISE SPECIFIED

- FILLET AND EDGE RADII TO BE R .010 MAXIMUM.
- DIMENSIONS APPLY AT MAXIMUM DRAFT.
- SPECIFICATIONS:
 FREQUENCY RANGE: 2.4-2.4835 GHz.
 GAIN: +1.5 DBI PEAK.
 IMPEDANCE: 50 OHMS.
 VSWR: ACROSS THE BAND <1.5:1.
 POWER RATING: 1 WATT MAX.
 OPERATING TEMPERATURE: -40° C TO 65° C @95% RH.
- MECHANICAL REQUIREMENTS:
 FLEX PERFORMANCE: 500 CYCLES AT 90° IN TWO DIRECTIONS PERPENDICULAR TO THE CENTERLINE AXIS OF THE CONNECTOR.

 PULL TEST: 30 LB.
 TORQUE TEST: 15 IN-LB.

 CORROSION TEST: 24 HOURS WITH 5% NaCl @85° C
 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 Kz: CONSTANT ACCELERATION OF 1.5 G's
- COSMETIC REQUIREMENTS PER SPECIFICATION 044856, APPENDIX A, CATEGORY II, CLASS A (EXTERNAL SURFACES ONLY).
- EXTERIOR SURFACE PER MOLD TECH 11010 OR EQUIVALENT.
- BULK PACKAGE PARTS (MAXIMUM 100 PARTS PER CONTAINER) TO PROVIDE ADEQUATE PROTECTION AGAINST SHIPPING DAMAGE AND MARK PACKAGE WITH 063825 AND DASH NUMBER TO WHICH MANUFACTURED PER SPECIFICATION 606427.
- PARTING LINE FLASH .005 MAXIMUM.
- GATE REMNANT .020 MAXIMUM.
- PART TO BE FREE OF MOLD RELEASE.
- CHANGES REQUIRE SAC APPROVAL.
- SEE CAD GENERATED WIRE FRAME AND OR/SOLID MODEL PART NUMBER 063825-005 FOR ADDITIONAL FEATURE DETAILS. ALL FEATURES NOT OTHERWISE DEFINED ARE TO BE ±.005 THE NOMINAL FEATURE POSITION AS DEFINED BY THE MODEL. THIS PART REQUIRES AN IGES FILE.

13 CLIP, ITEM 5 NOT SHOWN IN VIEW FOR DIMENSION CLARITY.



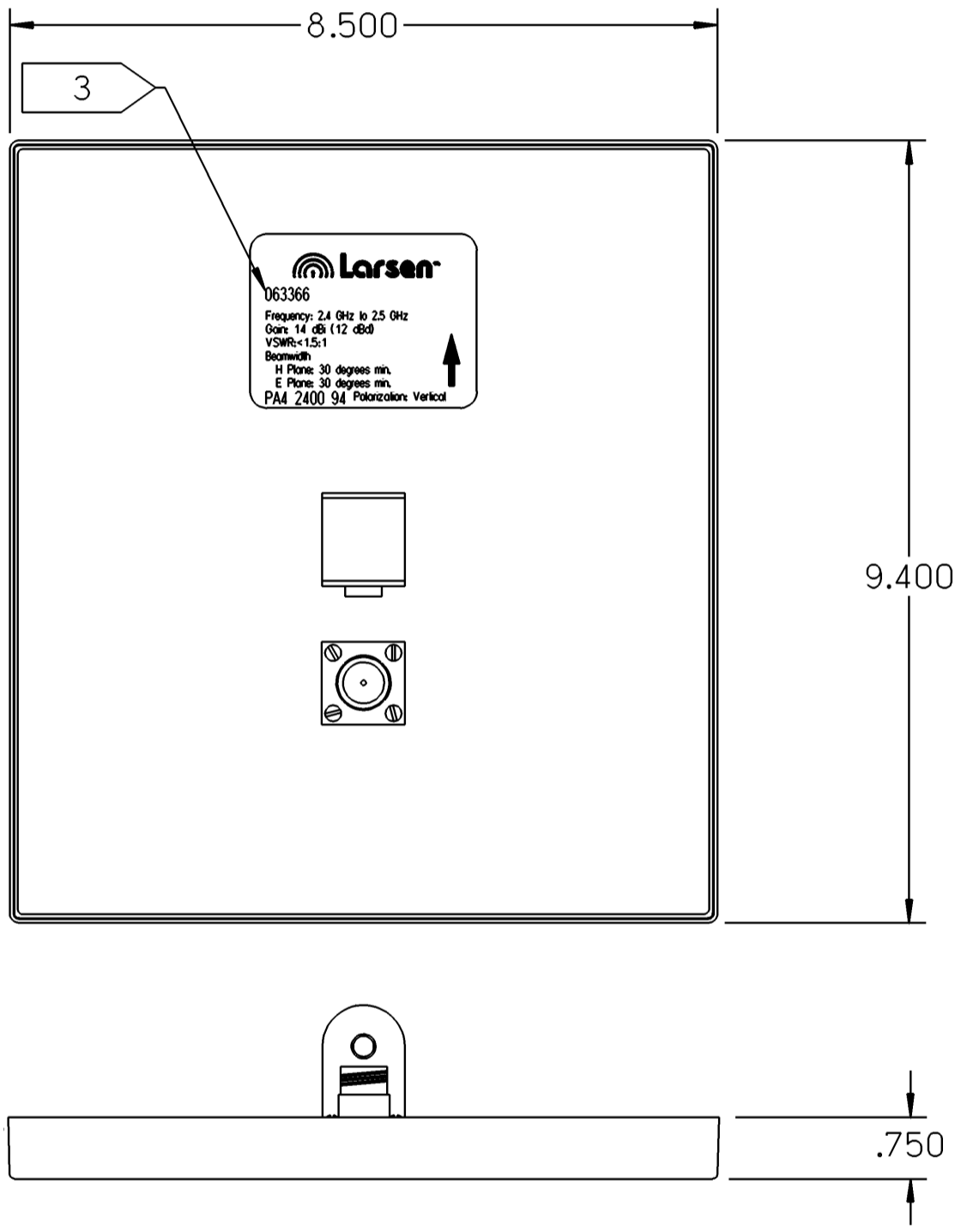
SOURCE CONTROL DRAWING
SEE SEPARATE PARTS LIST FOR 063825-005

-005

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CAD DBREF- 063825.1.g SYSTEM - HP		UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. .XX ± .01 .XXX ± .005 ANGLES ±		<table border="1"> <thead> <tr> <th>APPROVALS</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>DRAWN G.RAVEN</td> <td>2-9-96</td> </tr> <tr> <td>CHECKED R.HOAGLUND</td> <td>3-8-96</td> </tr> <tr> <td>RESP ENG R.ZIGLER</td> <td>3-11-96</td> </tr> <tr> <td>QA R.SLOVEK</td> <td>3-12-96</td> </tr> <tr> <td>MFG ENG V.LORD</td> <td>3-12-96</td> </tr> <tr> <td>SAC P.HELTON</td> <td>3-12-96</td> </tr> </tbody> </table>		APPROVALS	DATE	DRAWN G.RAVEN	2-9-96	CHECKED R.HOAGLUND	3-8-96	RESP ENG R.ZIGLER	3-11-96	QA R.SLOVEK	3-12-96	MFG ENG V.LORD	3-12-96	SAC P.HELTON	3-12-96	Intermec 6001 36TH AVENUE WEST EVERETT, WA 98203-9280 TITLE ANTENNA, SMB, 2.4 GHZ, DIPOLE	
APPROVALS	DATE																				
DRAWN G.RAVEN	2-9-96																				
CHECKED R.HOAGLUND	3-8-96																				
RESP ENG R.ZIGLER	3-11-96																				
QA R.SLOVEK	3-12-96																				
MFG ENG V.LORD	3-12-96																				
SAC P.HELTON	3-12-96																				
SIZE D	CAGE CODE 33825	DRAWING NUMBER 063825	REV G	SCALE NONE		SHEET 1 OF 1															

APPROVED SOURCE(S) OF SUPPLY							REVISION	REV STATUS OF SHEETS	REVISIONS			
SUPPLIER		PART NUMBER		5	4	3	2	1	REV	DESCRIPTION	DATE	DRAWN & APPROVED
1. LARSEN		PA4 2400 94							C	-001 RELEASED AT REV C		
2.												
3.												
4.												
5.												
6.												



- NOTES: UNLESS OTHERWISE SPECIFIED
- REFER TO THE MANUFACTURER'S SPECIFICATIONS FOR COMPLETE DESIGN PARAMETERS.
 - DUAL FUNCTION MOUNTING BASE SUPPLIED WITH HARDWARE KIT.
 - MARK PART WITH 063366 PER SPECIFICATION 606427. DO NOT MARK DASH NUMBER.
 - CHANGES REQUIRE SAC APPROVAL.

SOURCE CONTROL DRAWING
SEE SEPARATE PARTS LIST FOR 063366-001

CAD DB,REF- /cadserv/rel/063366.1.c SYSTEM - HP			
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. .XX ± .XXX ± .250 ANGLES ±	APPROVALS	DATE	Intermec 6001 36TH AVENUE WEST EVERETT, WA 98203-9280 TITLE ANTENNA, 2.4GHZ, FLAT PANEL SIZE CAGE CODE DRAWING NUMBER REV C 33825 063366 C SCALE NONE SHEET 1 OF 1
	DRAWN J.FOTI	1-11-96	
	CHECKED R.HOAGLUND	4-4-96	
	RESP ENG M.CHIN	4-8-96	
	QA D.SOLVEK	4-9-96	
	MFG ENGM.SALATINO	4-22-96	
SAC P.HELTON	4-8-96		
CMPNT ENG			

-001

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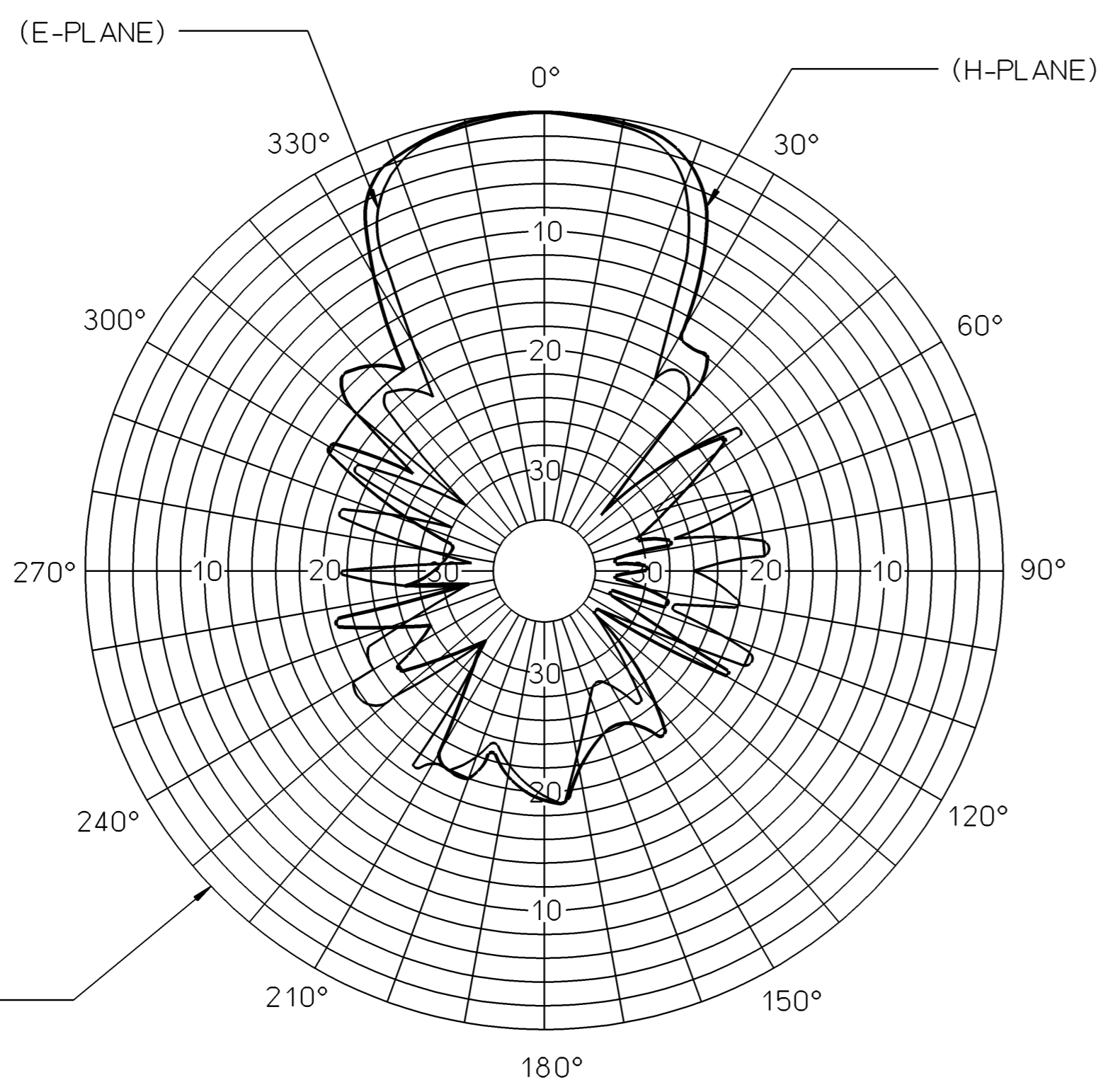
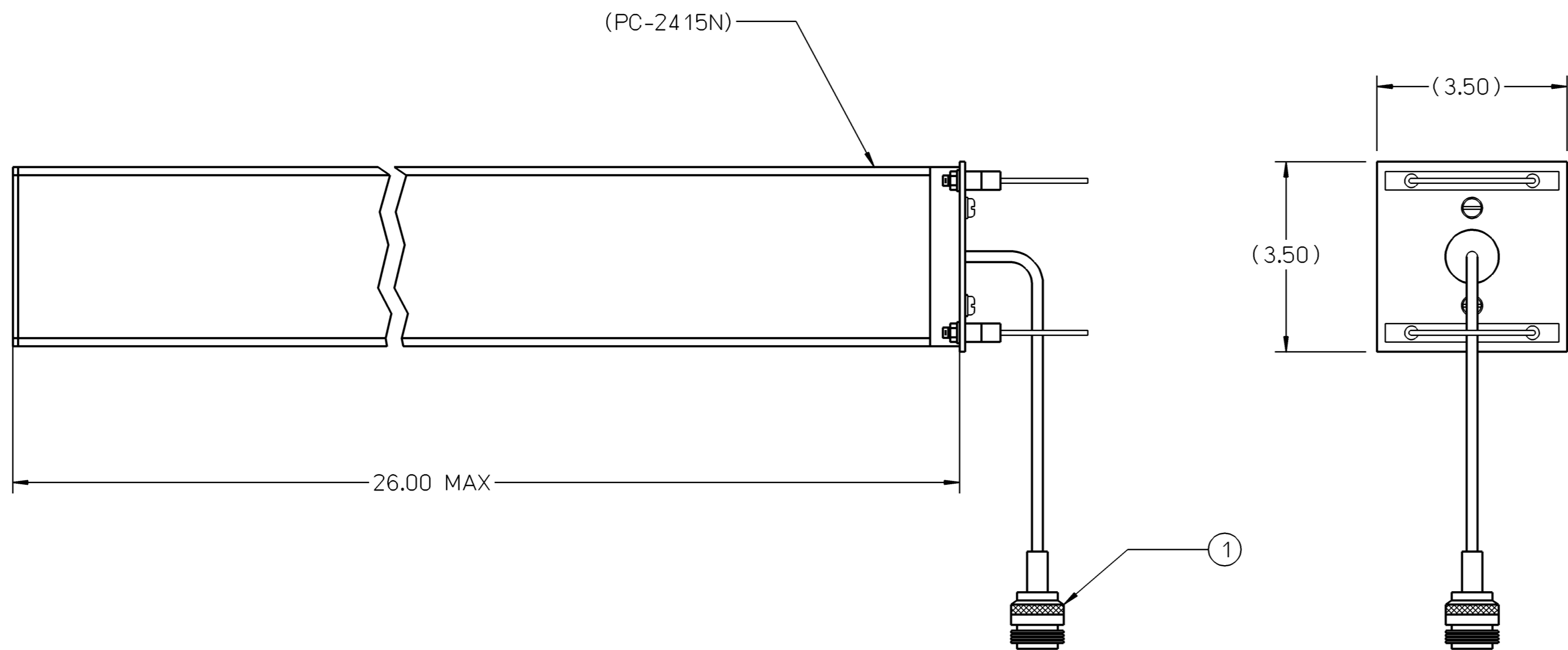
2

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APPROVED SOURCE(S)
OF SUPPLY

SUPPLIER	PART NUMBER
1. CUSHCRAFT	PC-2415RNF
2.	
3.	
4.	
5.	
6.	

REVISION					REV STATUS	REVISIONS			
5	4	3	2	1	OF SHEETS	REV	DESCRIPTION	DATE	DRAWN & APPROVED
					SHEET	C	-001 RELEASED AT REV C		
						D	-001 PER ECN 025344	9-3-96	L.JACKSON RCH



NOTES: UNLESS OTHERWISE SPECIFIED

- MATERIAL: LEXAN RADOME AND STAINLESS STEEL MOUNTING HARDWARE.
- COLOR: NEUTRAL.
- REMOVE ALL BURRS AND SHARP EDGES.
- COSMETIC REQUIREMENTS PER SPECIFICATION 044856, APPENDIX C, CATEGORY II, CLASS B.
- BAG PARTS AND MARK BAG WITH 063365 PER SPECIFICATION 606427. DO NOT MARK DASH NUMBER.
- CHANGES REQUIRE SAC APPROVAL.
- SPECIFICATION:
 FREQUENCY RANGE: 2400-2500MHz
 IMPEDANCE: 50 ohms (NOMINAL)
 GAIN: 13dBd (REFERENCED TO DIPOLE)
 15dBi (REFERENCED TO ISOTROPIC)
 BEAMWIDTH (3dB) H-PLANE: 34 DEGREES
 E-PLANE: 30 DEGREES
 FRONT TO BACK RATIO: > 17dB
 BANDWIDTH: 100MHz (VWSR<=2:1)
 VSWR: <=2:1 (2400-2500MHz)
 NUMBER OF ELEMENTS: 15
 POWER RATING: 200 WATTS MAX
 WEIGHT: < 1lb
 WIND LOAD: .4ft²
- DO NOT INSPECT PARTS TO DIAGRAM. FOR REFERENCE ONLY.
- MOUNTING HARDWARE KIT AND INSTRUCTIONS INCLUDED.

-001

SOURCE CONTROL DRAWING
SEE SEPARATE PARTS LIST FOR 063365-001

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CAD DB:REF- 063365.1.d SYSTEM - HP		APPROVALS		DATE	Intermec 6001 36TH AVENUE WEST EVERETT, WA 98203-9280
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		DRAWN	J.FOTI	8-22-95	
.XX ±		CHECKED	R.HOAGLUND	1-19-96	TITLE ANTENNA, 2.4GHZ, YAGI
.XXX ±		RESP ENG	M.CHIN	1-23-96	
ANGLES ±		QA	T.ANDERSON	1-23-96	SIZE CAGE CODE DRAWING NUMBER REV D 33825 063365 D
		MFG ENG	M.SALATINO	1-22-96	
		SAC	P.HELTON	1-22-96	SCALE NONE SHEET 1 OF 1
		CMPNT ENG			

5.0 Antenna Specifications: -0XX Parts

- 5.1 Frequency: See parts tabulation below
- 5.2 Antenna Gain: See parts tabulation below
- 5.3 VSWR: See parts tabulation below (over frequency range)
- 5.4 Power: 150 Watts max.
- 5.5 Radiation: Omnidirectional
- 5.6 Polarization: Vertical
- 5.7 Nominal Impedance: 50 Ohms

6.0 Mechanical Ratings: -0XX Parts

- 6.1 Radiator Element: Solid brass
- 6.2 Radome Material: UV-stable thermoplastic and metal base, black over chrome color
- 6.3 Antenna Mounting Means: 1-1/8 - 18 UNEF 2B thread
- 6.4 Ground Plane: Required for optimum performance
- 6.5 Antenna Height: See parts tabulation below
- 6.6 Ambient Operating Temperature: Not specified

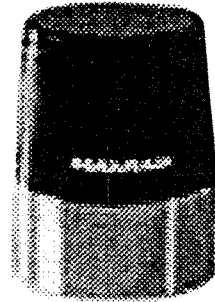
7.0 Antenna Parts Tabulation: -0XX Parts

Part Number	Antenna Type	Radio Frequency (MHz)	Gain	VSWR	Antenna Height
-001	wideband	1700 to 2500	4 dBi	<1.5:1	1.88 inch
-002	dual-band	806 to 906 1710 to 1990	2 dBi 2 dBi	<1.5:1 <2:1	2.50 inch

8.0 Mounting Base Tabulation: -1XX & -2XX Parts

Part Number	Mounting Style	Installation	Coax Type	Cable Length	Connector
-101	thru hole	3/4 inch hole mount	ML 195	17 feet	TNC plug
-102	magnetic	3-1/4" dia. base	ML 195	12 feet	TNC plug
-103	mirror mnt	bracket assembly	ML 195	17 feet	TNC plug
-201	thru hole	3/4 inch hole mount	ML 195	17 feet	Reverse TNC
-202	magnetic	3-1/4" dia. base	ML 195	12 feet	Reverse TNC
-203	mirror mnt	bracket assembly	ML 195	17 feet	Reverse TNC

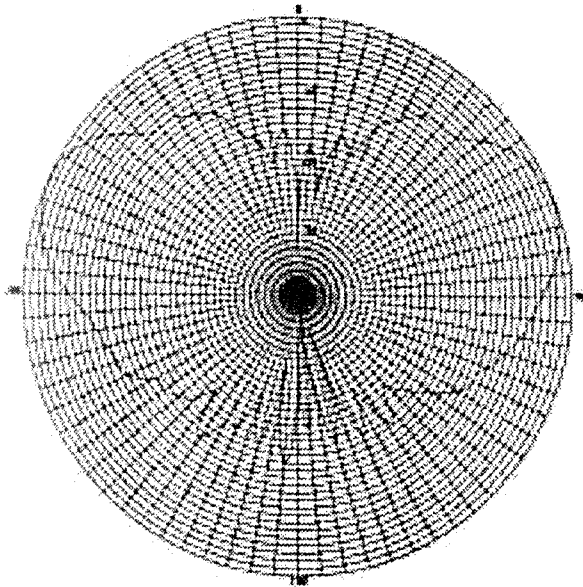
9.0 Outline Drawing (Inch): Wideband Antenna, -001 Part



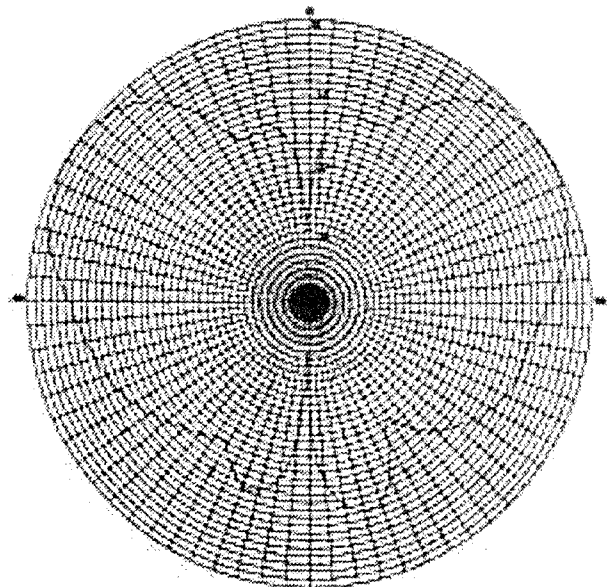
10.0 Outline Drawing (Inch): Dual-band Antenna, -002 Part



MLPVDB800/1900

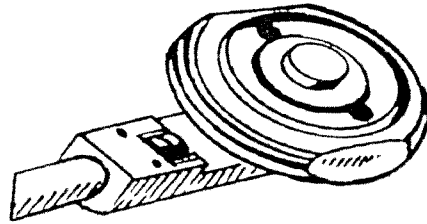


Elevation Pattern at 1900 MHz

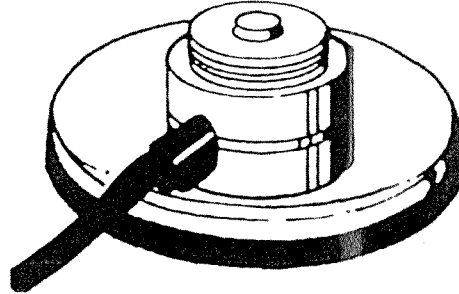


Elevation Pattern at 800 MHz

11.0 Outline Drawing (Inch): Thru Hole Mounting Base, -101/201 Parts



12.0 Outline Drawing (Inch): Magnetic Mounting Base, -102/202 Parts



13.0 Outline Drawing (Inch): Mirror Mounting Base, -103/203 Parts

