

CABLE DRAWING: MWA-3003

DRAWING TITLE:
ASC Internal RF-OUT Cable

DRAWING NO.: MWACAB-0003	DRAWN BY: DRC	DATE: 2-Nov-10	REV: A
		SHEET: 1 of 3	

Cable Detail:

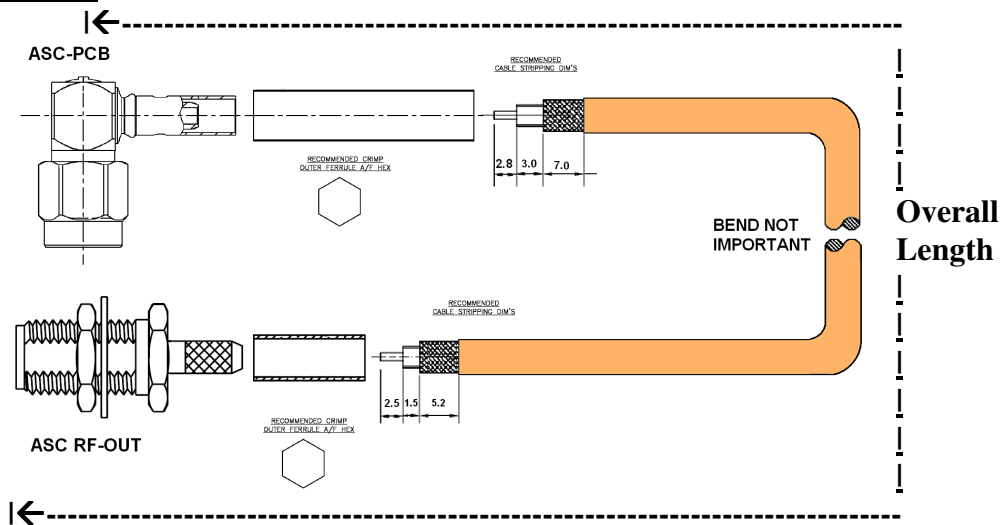
Connectors:	Description	Parts (Qty)
ASC-PCB	R125-172-000 R/A SMA Male Crimp for RG174/RG316/RG188	See Note1 Below(1)
ASC_OUT	AMPHENOL RF - 901-9875 SMA Bulkhead Jack	See Note2 Below(1)
Conductors:		
Cable	RG 316 Single Screen Cable DC-3GHz, 1.5dB/m@3GHz, Mil-C-17/113-RG316	See Note3 Below(21cm)
Misc:		
Numbering	Attach Cable Numbers 0 & 3 (Supplier to specify)	See Note4 Below

Overall Length 195+/-5mm

Notes:

1. The SMA R/A Plug connector can be supplied from Rojone #R125-172-000 or PSI stock (CON-0171). Any equivalent will be OK refer to data sheets supplied with this drawing.
2. The SMA Bulkhead Jack connector can be supplied from Farnell #170-4359. Any equivalent will be OK refer to data sheets supplied with this drawing.
3. The cable can be supplied from Rojone #CC-M17_113_RG316 or PSI stock (CAB-0182) Any equivalent will be OK refer to data sheets supplied with this drawing
4. Cable numbering parts are left to the cable manufacture to decide, only the last two digits are required, for example "MWACAB-0003" is designated as "03" on the cable

Typical Drawing:



REVISION

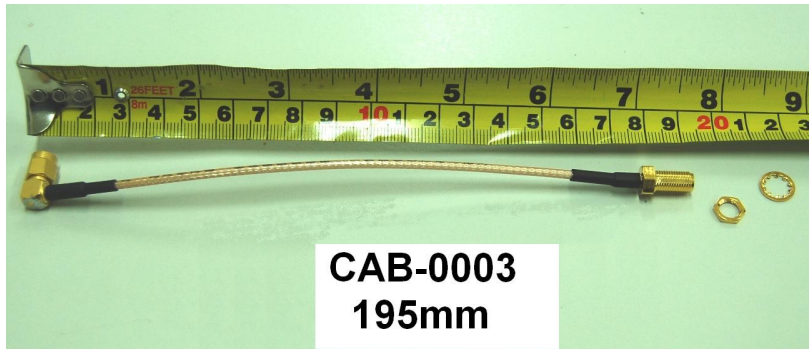
Date	Rev	Remarks
03/12/09	A	Draft
14/07/10	A	For Release
02/11/10	A	Salem Version

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DRAWING TITLE:
ASC Internal RF-OUT Cable

DRAWING NO.: MWACAB-0003	DRAWN BY: DRC	DATE: 2-Nov-10	REV: A
		SHEET: 2 of 3	

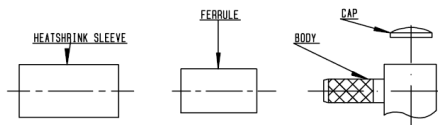
Typical Photo:



Assembly Details:

ASC-PCB End

M 11



P/N	Stripping length			Hex. dim H	Crimp tools	
	a	b	c		Dies included	MIL standard
R125 172 000	2.8	3	7	3.25	R282 211 000	R282 235 003 (M22520/5-03)

1

2

3

4

1.1 Slide onto the cable the ferrule and the heatshrink sleeve .
1.2 Strip the cable .

2.1 Fan the braid .
2.2 Push connector body under the braid
2.3 Slide the ferrule on the braid (in direction F)

3.1 Crimp the ferrule.
3.2 Solder inner conductor .

4.1 Place the cap .
4.2 Press cap flush or slightly below surface of body assembly .
Slide sleeve over ferrule and heatshrink in place .

REVISION

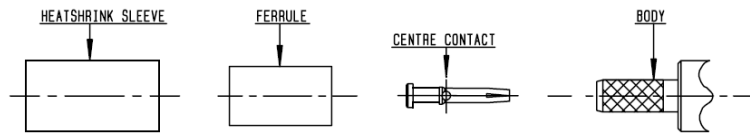
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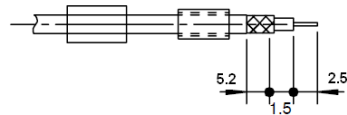
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ASC Internal RF-OUT Cable

DRAWING NO.: MWACAB-0003	DRAWN BY: DRC	DATE: 2-Nov-10	REV: A
		SHEET: 3 of 3	

ASC RF-OUT End

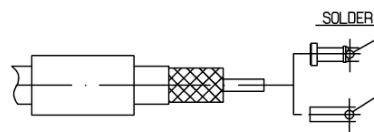


1



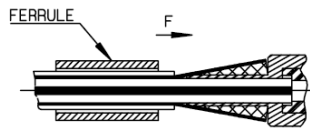
- 1.1 Slide onto the cable the ferrule and the heatshrink sleeve .
- 1.2 Strip the cable .

2



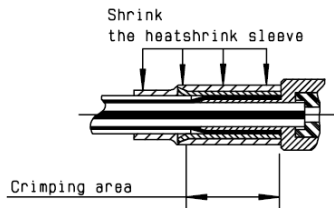
- 2.1 Slide on centre contact until it bottoms against cable dielectrique
- 2.2 Crimp or solder center contact
- 2.3 Clean soldering area .

3



- 3.1 Fan the braid .
- 3.2 Slide the cable into the body until it bottoms against insulator .
- 3.3 Slide the ferrule over the braid . (In direction F)

4



- 4.1 Crimp the ferrule.
- 4.2 Cut the excess of braid .
- 4.3 Slide sleeve over ferrule and heatshrink in place .

Connection Detail:

From: (ACS-PCB) Attached to the ASC PCB SMA Connectors
 To: (ASC RF-OUT) ASC1/2 SMA Connector Outputs

REVISION

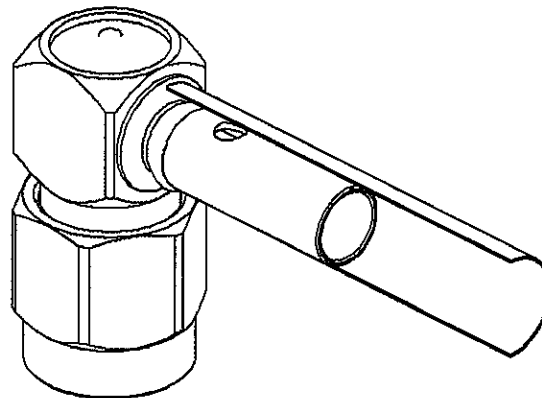
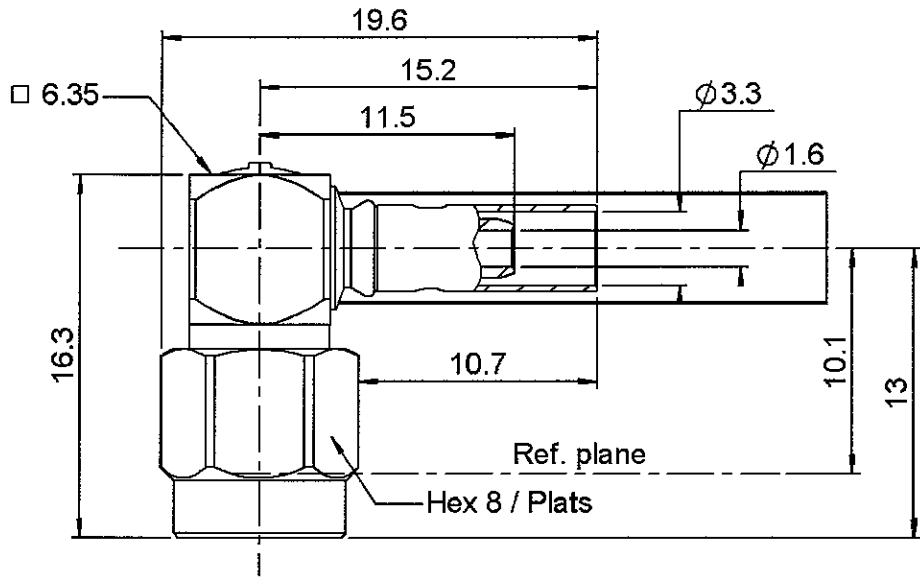
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RIGHT ANGLE PLUG CRIMP OR SOLDER TYPE

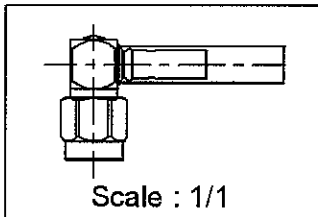
R125.172.000

CABLE 2.6/50 S

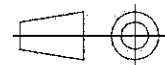
Series : SMA



CECC 22111-810-01



All dimensions are in mm.



COMPONENTS	MATERIALS	PLATINGS (μm)
BODY	STAINLESS STEEL	GOLD 0.5 OVER NICKEL 2
CENTER CONTACT	BRASS	GOLD 1.3 OVER NICKEL 2
OUTER CONTACT	-	-
INSULATOR	PTFE	-
GASKET	FLUORE SILICONE	-
OTHERS PARTS	STAINLESS STEEL	GOLD 0.5 OVER NICKEL 2
-	-	-
-	-	-

Issue : 0539 G

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



RIGHT ANGLE PLUG CRIMP OR SOLDER TYPE

R125.172.000

CABLE 2.6/50 S

Series : SMA

PACKAGING

Standard	Unit	Other
100	'W' option	Contact us

SPECIFICATION

ELECTRICAL CHARACTERISTICS

Impedance		50 Ω
Frequency		0-12.4 GHz
VSWR	1.15 +	0.03 x F(GHz) Maxi
Insertion loss		0.15 √F(GHz) dB Maxi
RF leakage	- (60 - F(GHz)) dB Maxi
Voltage rating		250 Veff Maxi
Dielectric withstanding voltage		750 Veff mini
Insulation resistance		5000 MΩ mini

CABLE ASSEMBLY

Stripping	a	b	c	d	e	f
mm	2.8	7	12.8	0	10	0

Assembly instruction : **Crimp 05**

Recommended cable(s)
 KX 3B
 RG 188
 RG 316
 KX 22A
 RG 174 FTX
 RG 174
 ECO 316

Characteristics indicated on this data sheet are those that can be achieved with the highest performance cable. Intrinsic limitations of the cable may diminish the performance of the assembly

Cable retention
 - pull off **90** N mini
 - torque **NA** N.cm

MECHANICAL CHARACTERISTICS

Center contact retention		
Axial force – Mating end	27	N mini
Axial force – Opposite end	27	N mini
Torque	2.8	N.cm mini

Recommended torque		
Mating	100	N.cm
Panel nut	NA	N.cm
Clamp nut	NA	N.cm
A/F clamp nut	0	mm

Mating life	500	Cycles mini
Weight	4.3	g

TOOLING

Part Number	Description	Hexagon
R282.211.000	CRIMPING TOOL	3.25
R282.235.003	CRIMPING DIES	3.25
R282.293.000	CRIMPING TOOL	

OTHERS CHARACTERISTICS

ENVIRONMENTAL

Operating temperature	-65/+165	°C
Hermetic seal	NA	Atm.cm3/s
Panel leakage	NA	

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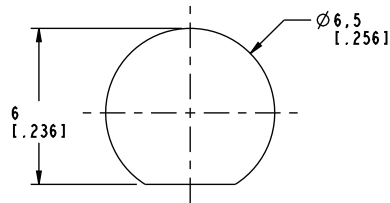
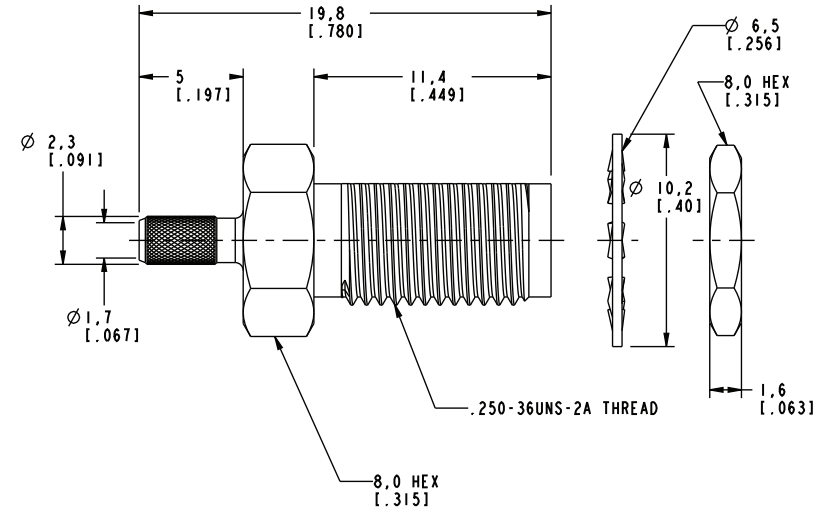
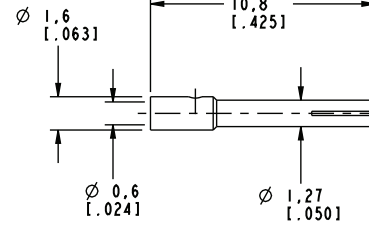
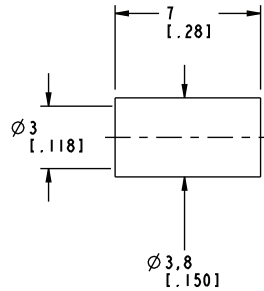
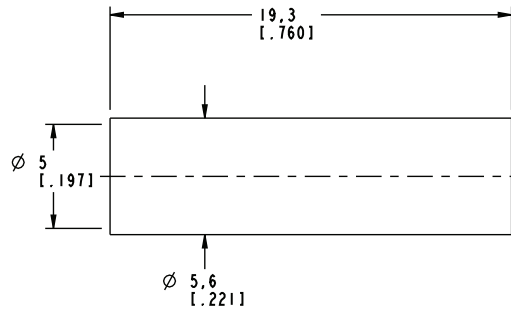
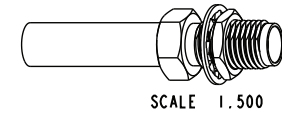
RADIALL®

NOTES:

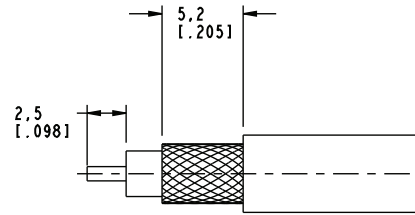
1. MATERIALS OF CONSTRUCTION:

BODY & HEX NUT = BRASS (ASTM-B16 H02, C36000), GOLD PLATED (.000003 MIN THICK)
 CONTACT PIN = BeCu (QQ-C-530), GOLD PLATED (.000050 MIN THICK)
 LOCKWASHER = BRASS (QQ-B-613), GOLD PLATED (.000003 MIN THICK)
 FERRULE = COPPER, GOLD PLATED (.000003 MIN THICK)
 INSULATOR = PTFE, ASTM D 1710 OR EQUIV.
 HEAT SHRINK TUBING = COLOR BLACK

901-9875		REVISIONS			
DRAWING NO.	REV	DESCRIPTION	DATE	ECO	APPR
THIRD ANGLE PROJ.	A	RELEASE TO MFG.	4/7/95	40352	PB/RV
	C	SEE SHEET 1	10/2/02	44222	CPM



RECOMMENDED MOUNTING
HOLE DIMENSIONS
SCALE 5.000



RECOMMENDED CABLE
STRIPPING DIMENSIONS
SCALE 3.000

CUSTOMER OUTLINE DRAWING
ALL OTHER SHEETS ARE FOR INTERNAL USE ONLY

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MM (INCHES) AND TOLERANCES ARE: 0.5 - 6mm ±0.2mm 6 - 30mm ±0.4mm 30 - 120mm ±0.6mm	MATERIAL	DRAWN C. McGRATH	DATE 10/1/02	TITLE SMA BULKHEAD CRIMP JACK (FOR RG-174/U, 188A/U, 316/U CABLES)	Amphenol Amphenol Corporation Communication and Network Products Division Danbury, CT U.S.A. 06810 SCALE: 4.0:1 SHEET 2 OF 2		
	REFERENCE GEN# 901-10039-RFX_ASSY EAR 966280-3 & 111-964413	ENGINEER O. BARTHELMES	DATE 10/1/02	APPROVED O. BARTHELMES			
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This specification describes a 50-ohm high temperature coaxial cable constructed to meet the requirements of Mil-C-17/113-RG316.

CONDUCTOR

Material: Silver-coated Copper Covered Steel
 Size: AWG 25
 Construction: 7 x .0067
 OD(nom): .0201"

INSULATION

Material: Extruded PTFE
 OD(nom): .059"

SHIELD

Material: Silver-coated Copper Braid
 Size: AWG 38
 Coverage(nom): 95.9%
 OD(nom): .077"

JACKET

Material: Extruded FEP
 OD: .098" ± .004"

COLOR

Natural
 Jacket: Translucent Brown

CABLE CHARACTERISTICS

Impedance: 50 +/- 2 ohms
 Capacitance(max): 32 pF/ft
 Weight(max): 12.2 lbs/1,000 ft

Frequency (MHz)	Attenuation (dB/100 ft)
50	7.5
100	11
400	21
1000	38
3000	58

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TENSOLITE COMPANY
 SUBSIDIARY OF CARLISLE CORPORATION
 ST. AUGUSTINE, FL

Drawn by: **Chris Lowe** Date: **1/16/97**

Approved By: **John Beatty** Date: **1/16/97**

Customer Spec

Tensolite P/N File
M17/113-RG316

-	1/16/97	Redrawn