

CABLE DRAWING: **CAB-0XXX (SALEM CODE)**

DRAWING TITLE:
AGFO Internal RF Cable

DRAWING NO.: MWACAB-0051	DRAWN BY: DRC	DATE: 5-Jan-10	REV: A
		SHEET: 1 of 3	

Cable Detail:

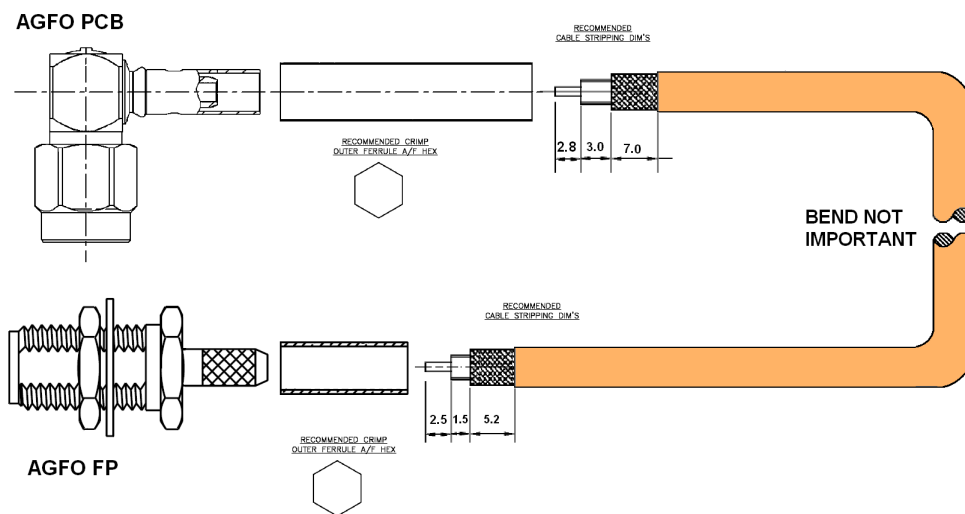
Connectors:	Description	Parts (Qty)
AGFO-PCB	R125-172-000 R/A SMA Male Crimp for RG174/RG316/RG188	See Note1 Below(1)
AGFO FP	AMPHENOL RF - 901-9875 SMA Bulkhead Jack	See Note2 Below(1)
Conductors:		
Cable	RG 316 Single Screen Cable DC-3GHz, 1.5dB/m@3GHz, Mil-C-17/113-RG316	See Note3 Below(??)
Misc:		
-		

Overall Length ??+/-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

Typical Drawing:



REVISION

Date	Rev	Remarks
05/01/10	A	Draft

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MWACAB-0051

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SHEET: 2 of 3

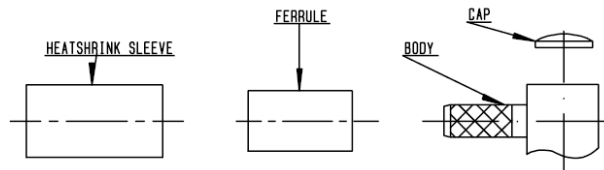
REV:

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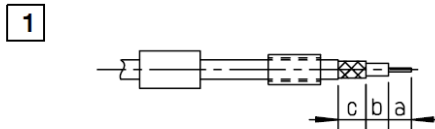
Assembly Details:

AGFO PCB End

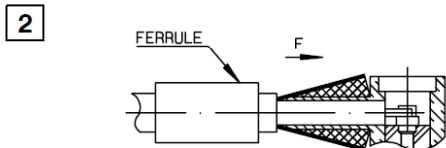
M 11



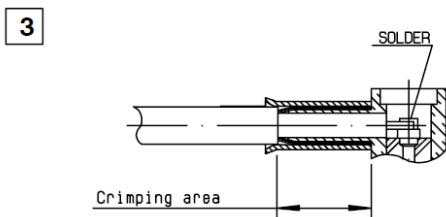
P/N	Stripping length			Hex. dim H	Crimp tools	
	a	b	c		Dies included	MIL standard R282 293 000 (M22520/5-01)+DIES
R125 172 000	2.8	3	7	3.25	R282 211 000	R282 235 003 (M22520/5-03)



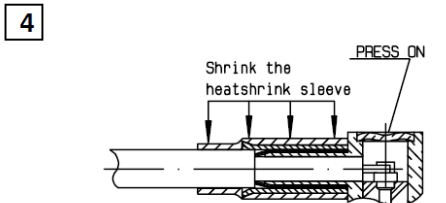
- 1.1 Slide onto the cable the ferrule and the heatshrink sleeve .
- 1.2 Strip the cable .



- 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.

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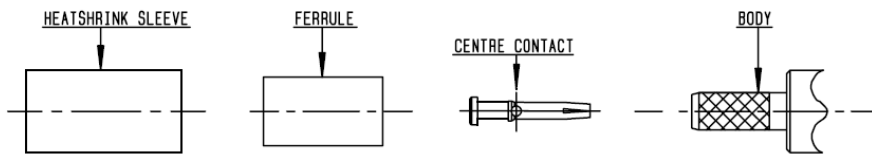
DATE: 5-Jan-10

REV:

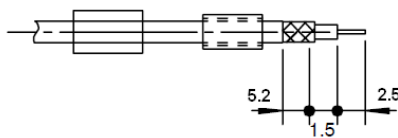
SHEET: 3 of 3

A

AGFO FP End

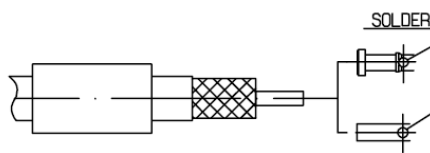


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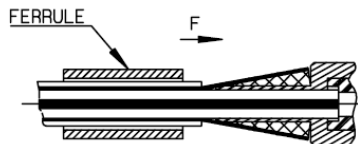
- 1.1 Slide onto the cable the ferrule and the heatshrink sleeve .
- 1.2 Strip the cable .

2



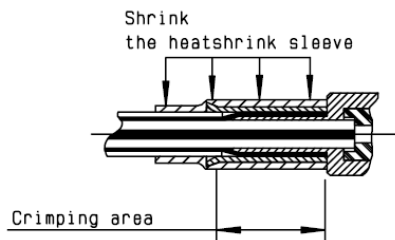
- 2.1 Slide on centre contact until it bottoms against cable dielectrique
- 2.2 Crimp or solder center contact
- 2.3 Clean soldering area .

3



- 3.1 Fan the braid .
- 3.2 Slide the cable into the body until it bottoms against insulator .
- 3.2 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: (AGFO-PCB)
To: (AGFO FP)

Attached to the AGFO PCB J5 or J6
Attached to the AGFO FP 164P or 164N

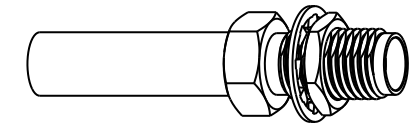
REVISION

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05/01/10	A	Draft

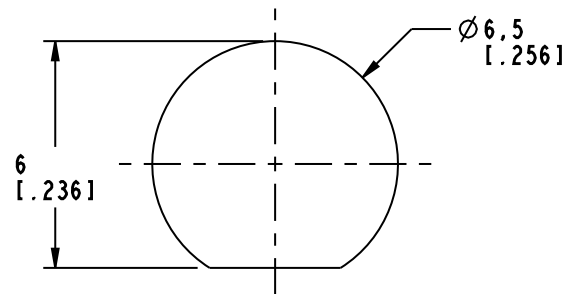
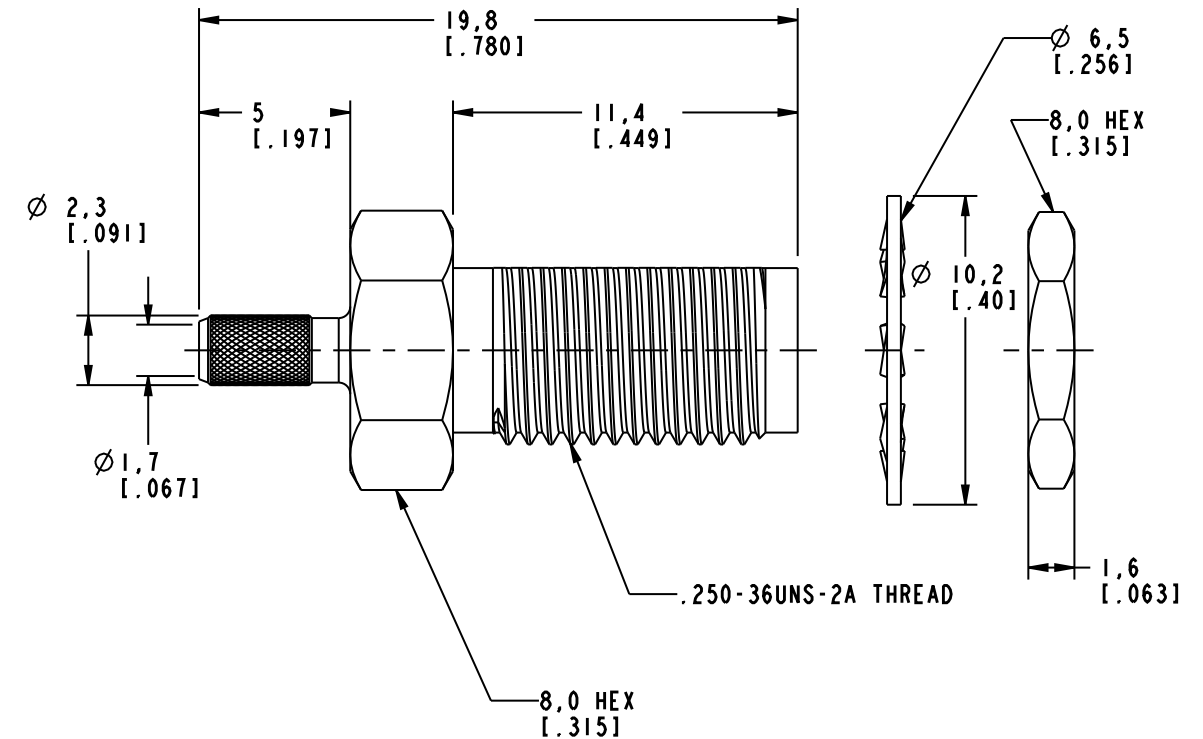
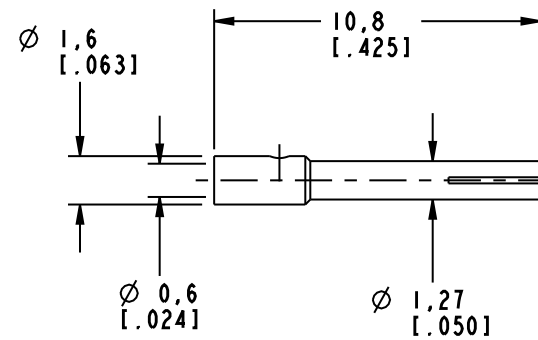
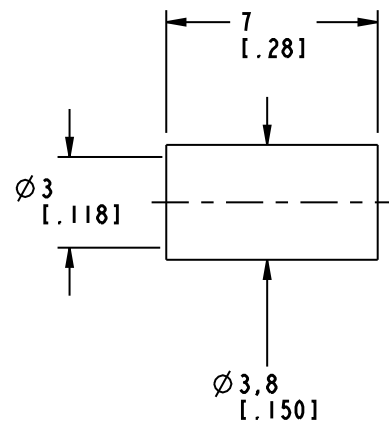
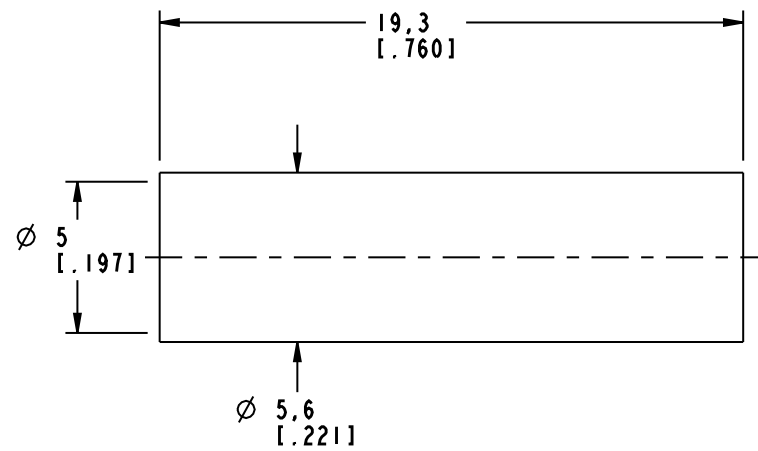
NOTES:

- 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

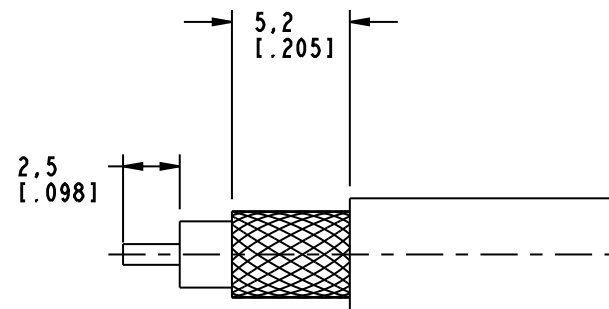
901-9875		REVISIONS			
DRAWING NO.	REV	DESCRIPTION	DATE	ECO	APPR
THIRD ANGLE PROJ.	A	RELEASE TO MFG.	4/7/95	40352	PB/RV
	C	SEE SHEET 1	10/2/02	44222	CPM



SCALE 1.500



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

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MATERIAL
 REFERENCE
 GEN# 901-10039-RFX_ASSY
 EAR 966280-3 & 111-964413

DRAWN
 C. McGRATH
 ENGINEER
 O. BARTHELME
 APPROVED
 O. BARTHELME
 CAD FILE
 I:\SMA\901-9875

DATE
 10/1/02
 DATE
 10/1/02
 DATE
 10/2/02

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

CODE ID 74868 DWG SIZE B DRAWING NO. 901-9875 REV C

SMA Brass Angle Plugs & Bulkhead Jacks

Fig. 1

SMA Angle Plug, Crimp
901-9872▲
 Gold Plated for RG-174, 188, 316
901-9873▲
 Gold Plated for RG-58
901-9874▲
 Gold Plated for RG-141, 223
901-9880-RFX▲
 Nickel Plated for RG-58
901-9881-RFX▲
 Nickel Plated for RG-174, 188, 316
901-10028-RFX
 Gold Plated for RD-174, 188, 316
901-10029-RFX
 Nickel Plated for RD-174, 188, 316

Fig. 2

SMA Low Profile Angle Plug, Crimp
901-9902
 Nickel Plated for RG-141, 223

Fig. 3

SMA Bulkhead Jack, Crimp
901-9875▲
 Gold Plated for RG-174, 188, 316
901-9879-RFX▲
 Nickel Plated for RG-174, 188, 316

Fig. 4

SMA Bulkhead Jack with O-Ring
901-10013-RFX
 RG-174, 188, 316

SMA BRASS ANGLE PLUGS

Cable RG-/U	Connector Description	Cable Attachment		c Dia In. (mm)	CAI	Ins.	Notes	Amphenol Number	Fig.
		Outer	Inner						
58	Angle Plug	Crimp	Solder	.210(5.3)	C53	D1	Gold Plated Body	▲ 901-9873	1
	Angle Plug	Crimp	Solder	.210(5.3)	C53	D1	Nickel Plated Body	▲ 901-9880-RFX	1
174, 188, 316	Angle Plug	Crimp	Solder	.128(3.3)	C57	D1	Nickel Plated Body	▲ 901-9881-RFX	1
	Angle Plug	Crimp	Solder	.128(3.3)	C57	D1	Gold Plated Body	▲ 901-9872	1
	Angle Plug	Crimp	Solder	.128(3.3)	C57	D1	Gold Plated Body	901-10028-RFX	1
	Angle Plug	Crimp	Solder	.128(3.3)	C57	D1	Nickel Plated Body	901-10029-RFX	1
	Angle Plug	Crimp	Solder	.128(3.3)	C57	D1	Nickel Plated Body	901-10029-RFX	1
141, 223	Angle Plug	Crimp	Solder	.220(5.6)	C53	D1	Gold Plated Body	▲ 901-9874	1
141, 223	Low Profile Angle Plug	Crimp	Solder	.220(5.6)	C53	D1	Plated Body	901-9902	2

SMA BRASS BULKHEAD JACKS

Cable RG-/U	Connector Description	Cable Attachment		c Dia. In. (mm)	CAI	Ins.	Notes	Amphenol Number	Fig.
		Outer	Inner						
174, 188, 316	Bulkhead Jack	Crimp	Solder	.128(3.3)	C53	D1	Gold Plated Body	▲ 901-9875	3
	Bulkhead Jack	Crimp	Solder	.128(3.3)	C53	D1	Nickel Plated Body	▲ 901-9879-RFX	3
	Bulkhead Jack	Crimp	Solder	.128(3.3)	C53	D1	Nickel Plated Body	901-10013-RFX	4

▲ distributor stocked

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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 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