FIBER & POWER

IN ONE CONNECTOR SOLUTION

Amphenol Aerospace Presents:
FIBER TO ANTENNA (FTTA) INTERCONNECT SOLUTIONS

Borne from the foundation of D38999 mil-spec harsh environment connectors, the FTTA interconnect solution combines standard fiber optic LC components and copper contacts in a rugged, affordable package. The FTTA series is highly configurable to support a wide range of industrial applications where fiber and copper connectivity are required in a single connector for rapid deployment and easy maintainability.

FTTA FEATURES

Highly Configurable
Rugged plug and receptacle combination with:
- Two Duplex LCs

(four fiber optic connections)
- Two Size 12 power pins

Options for shell material:
- Composite
- Aluminum
- Stainless Steel

All standard platings:
- Nickel
- Olive Drab Cadmium
- Durmalon
- Black Zinc Nickel

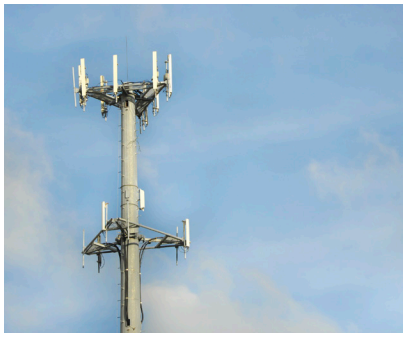
Shell Style:
- Jamnut
- Wall Mount
- Box Mount Receptacle

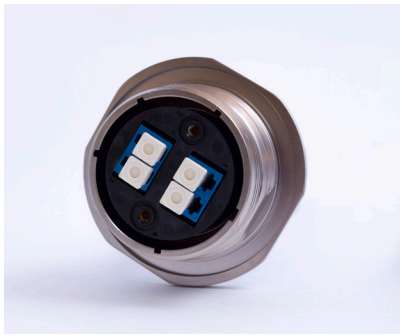
APPLICATIONS

Cell Towers
Base Stations
Rugged Fiber Optic Applications

QUALIFICATION DATA

Insertion Loss
Return Loss
Copper contact resistance/DWV
Termini retention force
Mating force
Durable through 500 mating cycles
Electrical continuity
Temperature
Sealing
Mechanical Shock
Vibration
Corrosion
Heat rise





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OPTICAL/MECHANICAL/ENVIRONMENTAL PERFORMANCE

INSERTION LOSS :
Typical of .1dB at 1310nm and 1550nm

RETURN LOSS :
Minimum of 50dB

TERMINI RETENTION :
Maintain optical transmittance with low attenuation (less than .5dBm) during longitudinal axis forces on the termini.

MATING FORCE :
Maximum force necessary to completely engage or disengage the connector is less than 40 pound-inches. The minimum disengagement force is 5 pound-inches.

DURABILITY :
No evidence of mechanical damage and the coupling mechanism is functional after 100 mating/de-mating cycles.

INSULATION RESISTANCE, CONTACT RESISTANCE, DIELECTRIC WITHSTANDING VOLTAGE, ELECTRICAL CONTINUITY

TEMPERATURE:
Operating and non-operating ranges from -40°C to 85°C

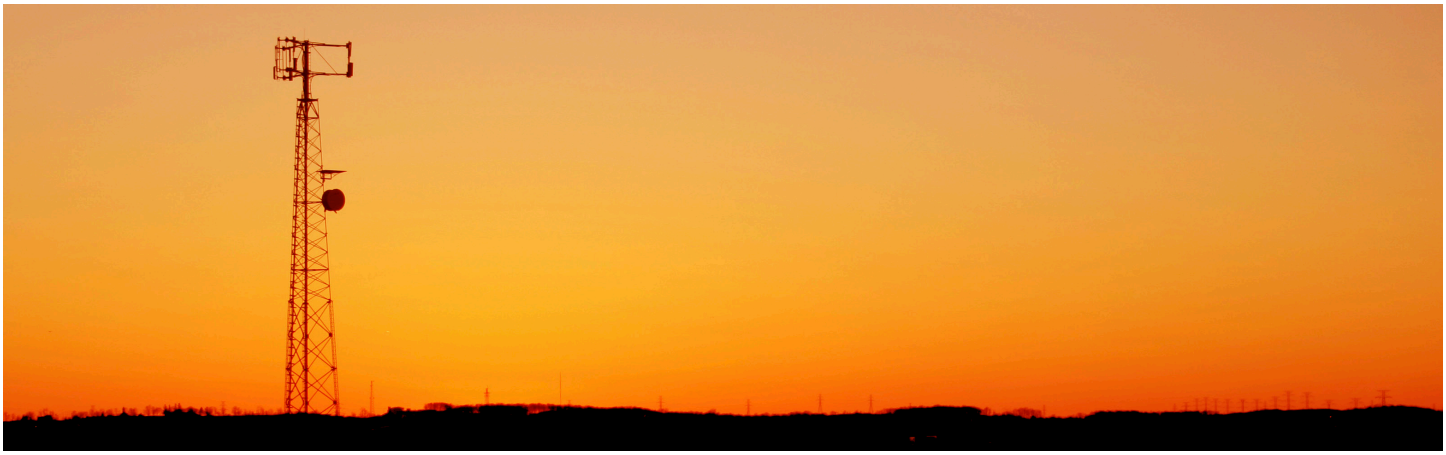
SEALING:
IEC 60529, IPX8

MECHANICAL SHOCK:
50g peak per IEC 60068-2-27

VIBRATION:
IEC 60068-2-6
10-500 Hz frequency range
5gn or 50m/sec^2 acceleration amplitude
2 hour durations

CYCLICAL CORROSION:
SALT:
Salt Concentration: 5% +/- 1% by weight
Temperature: 35 ± 2OC
Ph: 6.5 to 7.2. (5% solution)
Fallout: 1 to 2 ml per hour

HUMIDITY:
Lower Temperature Dwell: 25ºC +5ºC/-0ºC
Upper Temperature Dwell: 55ºC +5ºC/-0ºC
Relative humidity: 92% +2%, -3%
Dwell Duration: 11 hrs
Transition Time: 0.5 hrs



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PART NUMBER CONFIGURATION

1.	2.	3.	4.	5.	6.
PLUG AND RECEPTACLE CONNECTOR					
CONNECTOR TYPE	MATERIAL	PLATING	SHELL STYLE	ARRANGEMENT	ROTATION
CF–	5F	F	7	25-02	N

1. Connector Type

	Designates
CF–	Fiber Optic Product

2. Material

	Designates
5F	Aluminum
	Stainless Steel and Composite - Consult Factory

3. Plating

	Designates
4	Electro-Less Nickel
9	Olive Drab Cadmium
D	Durmalon (Nickel PTFE)
2	Anodize
F	Black Anodize
Z	Black Zinc Nickel

4. Shell Style

	Designates
7	Jamnut Receptacle
6	Straight Plug
	Other shell styles - Consult Factory

5. Arrangement

	Designates
25-02	2 Duplex LC's (4 total) and 2 size 12 contacts

6. Rotation

	Designates
N	N
A	A
B	B
C	C
D	D
E	E

1.	2.	3.		4.	5.
FIBER CABLE ASSEMBLIES FOR RECEPTACLE					
CONNECTOR TYPE	ASSEMBLY	LENGTH (in)		CABLE TYPE	ARRANGEMENT
CF–	LC	9999	–	S09	N

1. Connector Type

	Designates
CF–	Fiber Optic Product

2. Assembly

	Designates
LC	LC Duplex to LC Duplex Cable
	For Other Configurations - Consult Factory

3. Length (in)

	Designates
9999	For Longer Lengths - Consult Factory

4. Cable Type

	Designates
S09	SM/UPC
A09	SM/APC
M50	50/125um
M60	62.5/125um

5. Arrangement

	Designates
N	Industrial Temperatures (-40°C – +85°C)
C	Commercial Temperatures (0°C – +70°C)

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PART NUMBER CONFIGURATION

1.	2.	3.	4.	5.	6.	
FIBER CABLE ASSEMBLIES FOR PLUG						
CONNECTOR TYPE	PLATING	ROTATION CONNECTOR "A"	ROTATION CONNECTOR "B"	LENGTH		FIBER TYPE
CF–	D	N	N	999	–	S09

1. Connector Type

	Designates
CF–	Fiber Optic Product

2. Plating

	Designates
4	Electro-Less Nickel
9	Olive Drab Cadmium
D	Durmalon (Nickel PTFE)
2	Anodize
F	Black Anodize
Z	Black Zinc Nickel

3. Rotation Connector "A"

	Designates
N	N
A	A
B	B
C	C
D	D
E	E

4. Rotation Connector "B"

	Designates
N	N
A	A
B	B
C	C
D	D
E	E

5. Length

	Designates
999	

6. Fiber Type

	Designates
S09	SM/UPC
A09	SM/APC
M50	50/125um
M60	62.5/125um

1.	2.	3.	4.		
COPPER CABLE ASSEMBLIES FOR THE RECEPTACLE					
CONNECTOR TYPE	MATERIAL	TERMINATION TYPE	LENGTH (in)		
CA–	5F	F	7	–	000

1. Connector Type

	Designates
CA–	Copper Product

2. Material

	Designates
1	12 Gauge of Contact and Wire
	For Other Configurations - Consult Factory

3. Termination Type

	Designates
1	Flying Lead
	For Other Configurations - Consult Factory

4. Length (in)

	Designates
9999	For Longer Lengths - Consult Factory

DUST CAP FOR RECEPTACLE	
CF-030158-014H	Electro-Less Nickel Aluminum
CF-030158-0149	Olive Drab Cadmium Aluminum
CF-030158-014T	Durmalon (Nickel PTFE) Aluminum
CF-030158-006	Black Anodize Aluminum
CF-030158-014Z	Black Zinc Nickel Aluminum

DUST CAP FOR RECEPTACLE (SIZE 12 PINKS AND SOCKETS)	
10-646410-006	Size 12 Pin Contact
10-646410-016	Size 12 Socket Contact

All assemblies contain 2 each 12AWG standard copper
All grounded platings (4,9,D) shell use shielded cable

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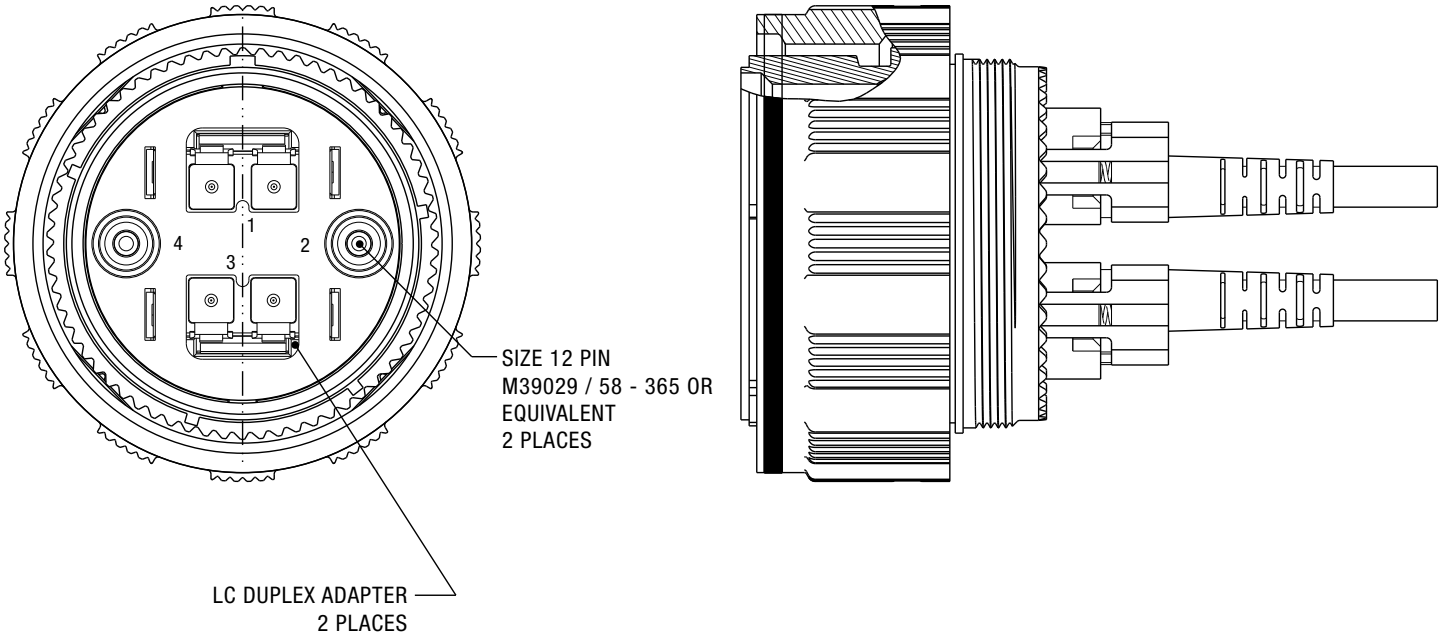
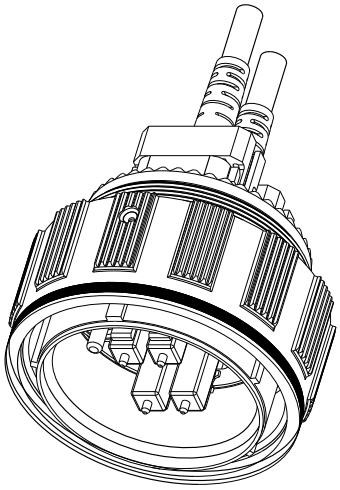
FTTA DRAWINGS (PLUG)





ISOMETRIC VIEW
SCALE 2.000

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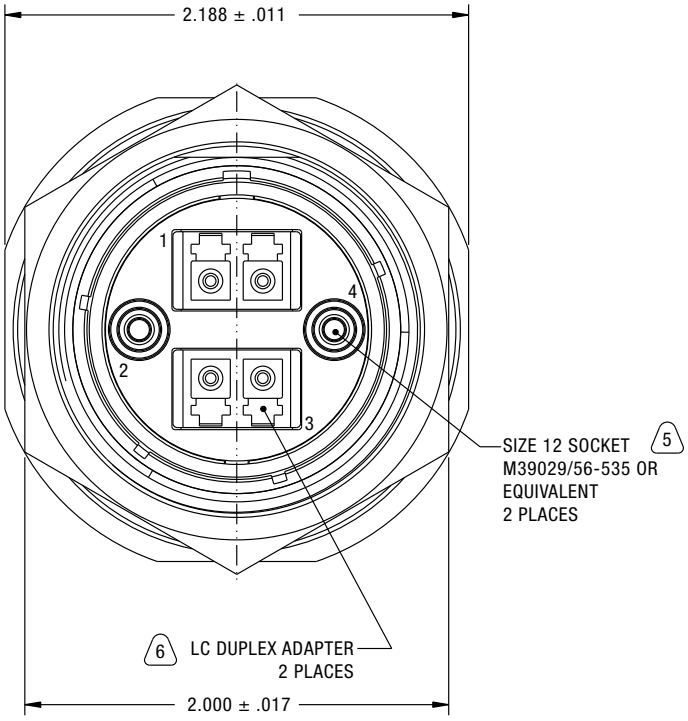
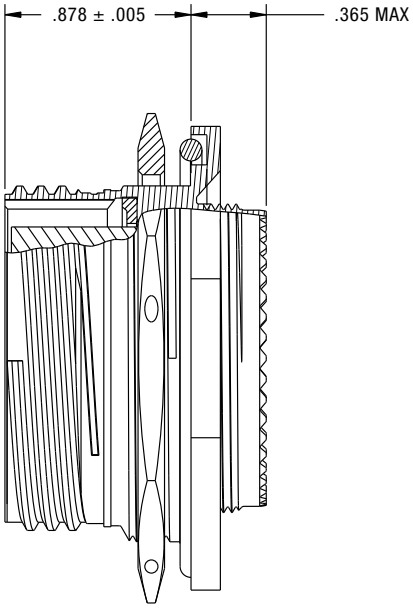
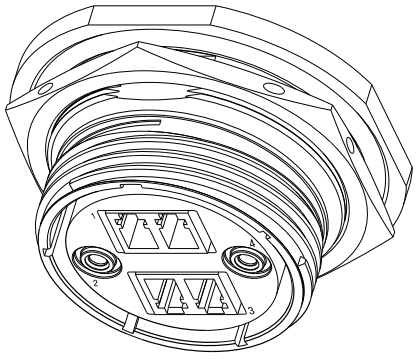
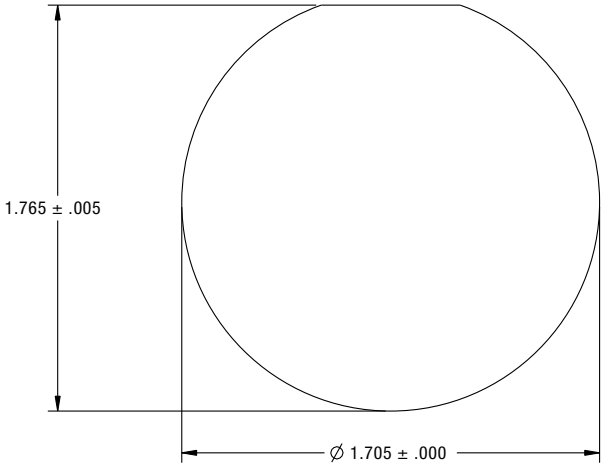
FTTA DRAWINGS (RECEPTACLE)







ISOMETRIC VIEW
SCALE 2.000



RECOMMENDED PANEL
CUTOUT
SCALE 3.000

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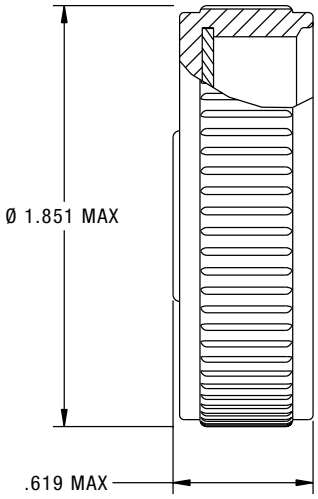
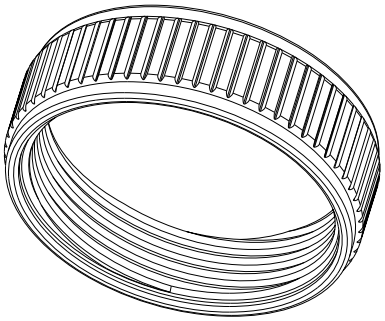
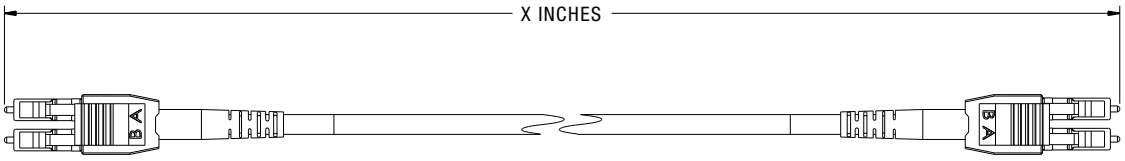
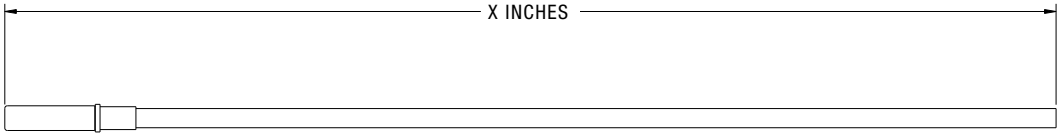
FTTA DRAWINGS (DUST CAP & CABLES)



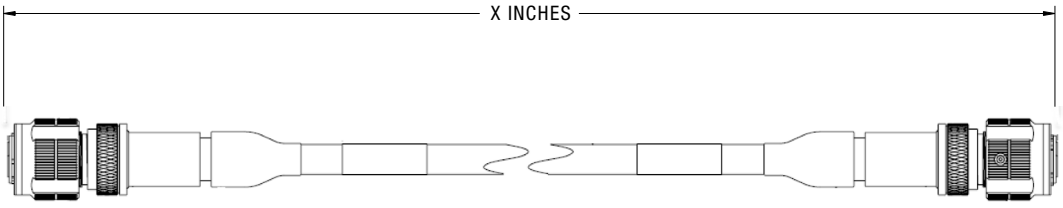




RECEPTACLE COPPER CABLE



RECEPTACLE FIBER CABLE



PLUG TO PLUG CABLE

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