

# *OUTSIDE PLANT DS3 DEPLOYMENT CONNECTIVITY HARDWARE*



# OUTSIDE PLANT DS3 DEPLOYMENT CONNECTIVITY HARDWARE

## 3G-WIRELESS PASS THRU JACK MODULE WITH NON-INTRUSIVE SIGNAL MONITORING PORTS

One of the problems involved with deploying DSL Internet connectivity is related to the physical distance between potential users and the nearest telco central office. Current technology is limited to 18k ft and the further away you are ? with that envelope the lower your data speed or bandwidth. About half of all users fall into this "reach". Currently, the two primary higher speed (broadband) technologies that are able to reach internet users are DSL (telco) and cable modem (CATV). Given the limits of deployed central offices to "reach" the other 50% of North America with revenue rich high demand digital services like DSL, service providers are increasingly considering signal lines that includes higher deliverable bandwidth over greater distances. The explosive growth of DSLAM technology confirms this.

Existing optical fiber solutions (fiber to the curb, fiber to the home) are expensive due to networking and OEO (optical electrical optical) conversion costs. Fiber to the node (central neighborhood distribution point remote to the central office) looks very attractive, since optical broadband can be multiplexed at the node itself into twisted pair and/or coax signal lines (copper technology). Coax is another solid choice since it

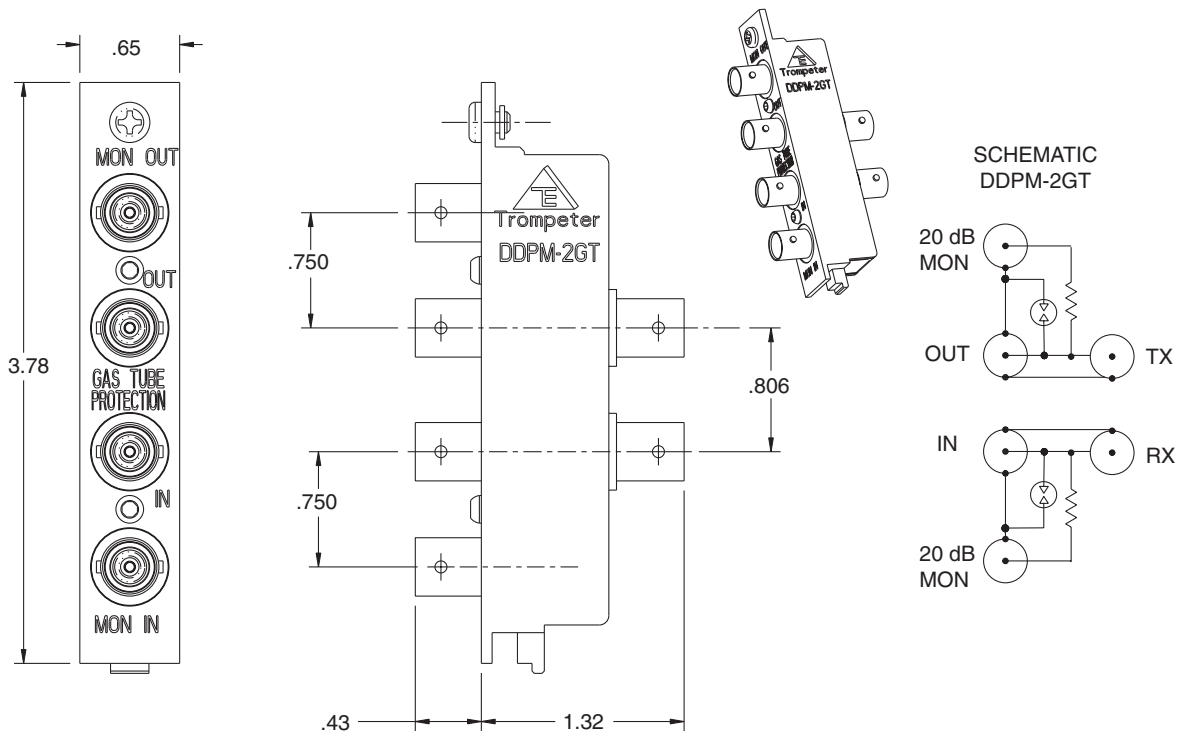
is the conventional DS3 line which, when deployed to the outside plant remote terminal or facility premises, can be the best choice for bandwidth rich applications such as 3G, WIFI 802.11b, office premise instrument "closets", "hotel" business, or other internet "clustered" connectivity.

This newly developing market segment needs DS3 hardware. Trompeter, the telco RBOC carrier class telco choice for DS3 connectivity in the central office, is responding with the new products featured in this brochure. They are NEBS approved.

The heart of our expanded family of DS3 access products is our field proven DDPM-2 access module with standard BNC interface. Modules are easily inserted into economical panels. Full bays accommodating up to 16 loaded panels (each panel with up to 32 DDPM modules) and all required cable management hardware is also available. The DDPM modules are NEBS level III certified. Gas-tube products are UL listed as well.

### Module Part Number: DDPM-2GT

BNC Style 75 ohm panel mounted coaxial parallel network with two 20 dB monitor ports, provides surge protection

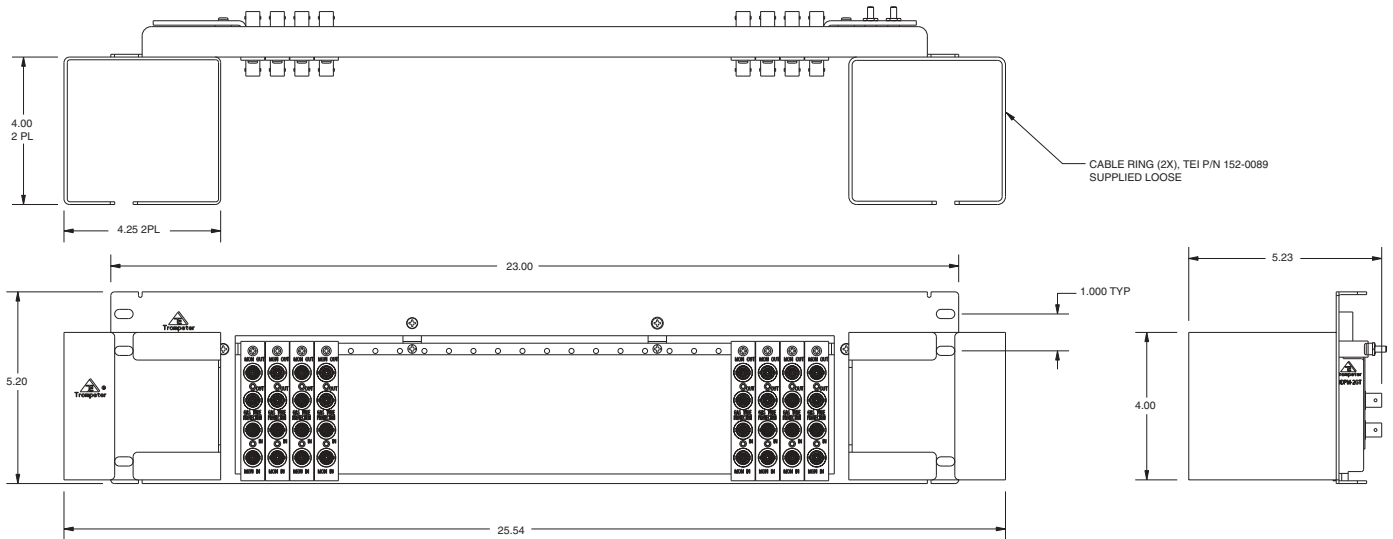


# OUTSIDE PLANT DS3 DEPLOYMENT CONNECTIVITY HARDWARE

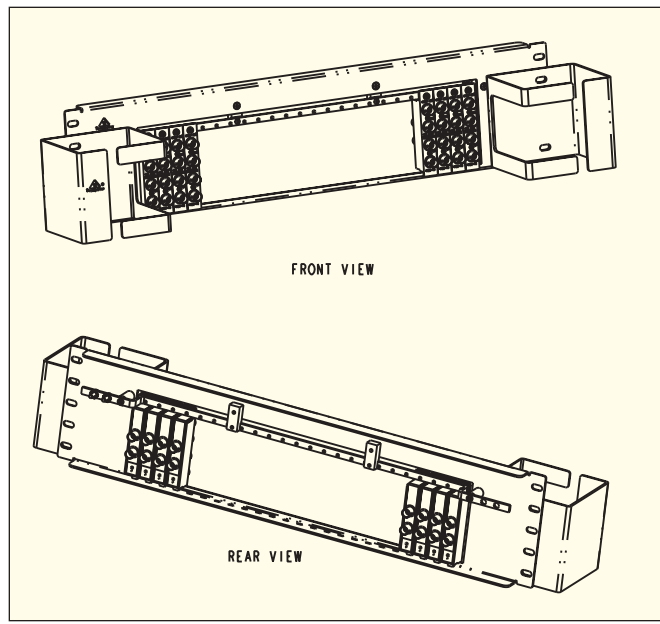
## 3G-WIRELESS PANELS

Loaded Panel Part Number: 155-1081-1

TABLE 1		
DASH.NO.	LOADED WITH	MODEL NO.
-1	24 DDPM-2GT MODULES (TWO INPUTS, TWO OUTPUTS AND TWO MONITOR POINTS WITH SURGE PROTECTION AND GROUND BAR)	JSDDF2-24GT
-2	NO MODULES	N/A
-3	24 DDPM-2 MODULES (TWO INPUTS, TWO OUTPUTS AND TWO MONITOR POINTS)	N/A
-4	24 DDM-2 MODULES (TWO INPUTS, TWO OUTPUTS AT REAR AND TWO MONITOR POINTS AT FRONT)	N/A



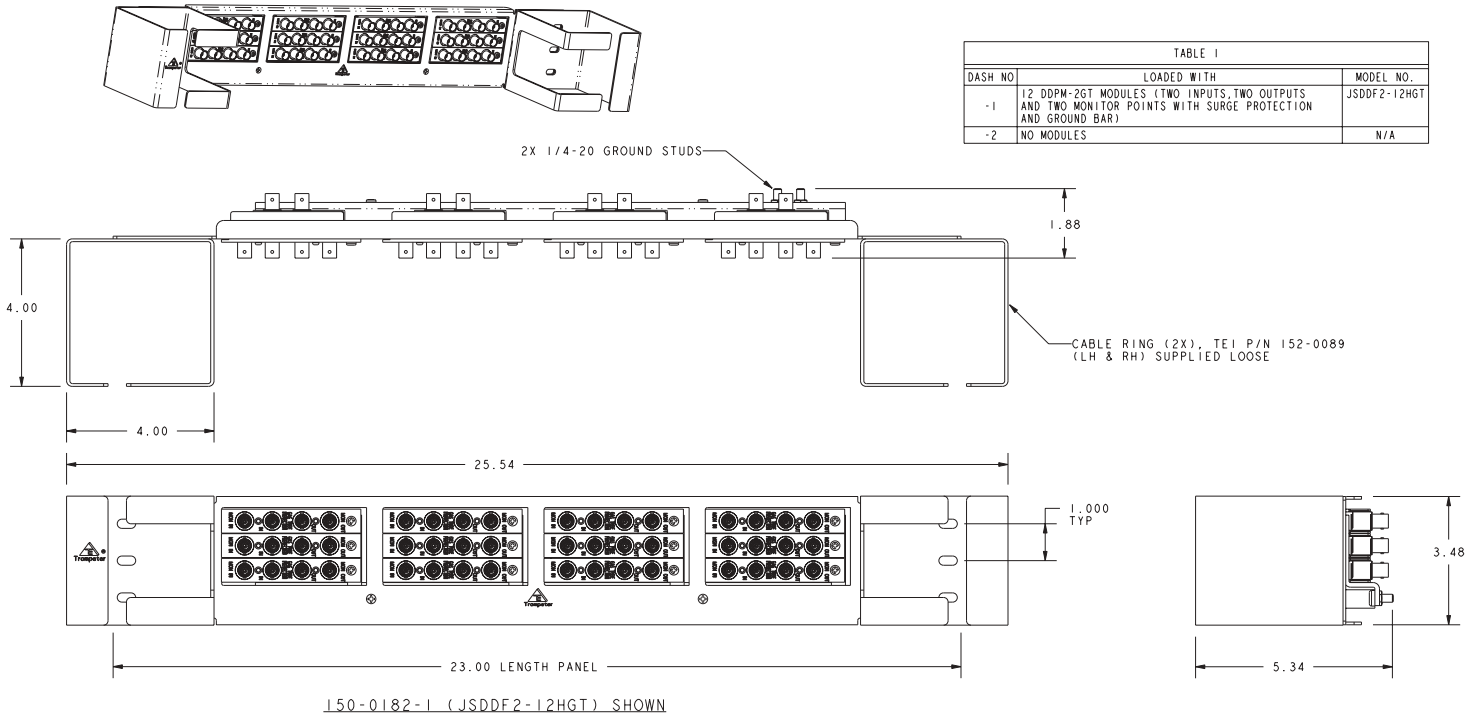
3G WIRELESS - 23" VERTICAL PANEL WITH 2 CABLE RINGS (SUPPLIED LOOSE), ACCOMODATES UP TO 24 MODULES, LOADED PER TABLE 1



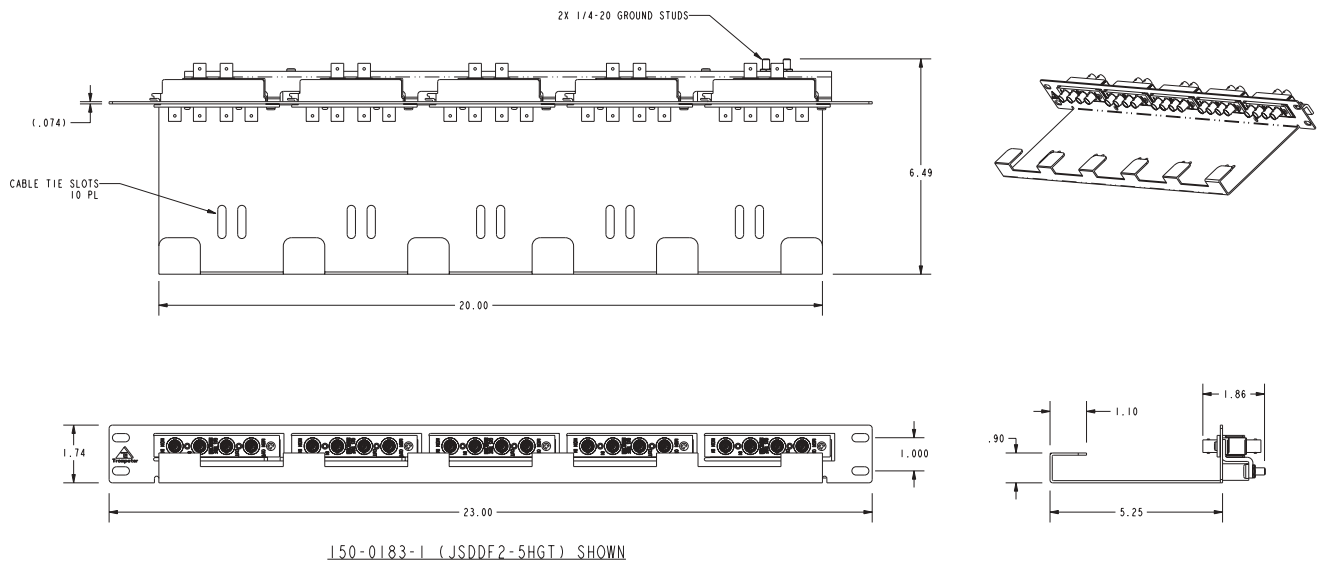
# OUTSIDE PLANT DS3 DEPLOYMENT CONNECTIVITY HARDWARE

## 3G-WIRELESS PANELS

Loaded 2RU Panel P/N: 150-0182-1 (loaded with 12 DDPM-2GT modules - model no. JSDDF2-12HGT)



Loaded 1RU Panel P/N: 150-0183-1 (loaded with 5 DDPM-2GT modules - model no. JSDDF2-5HGT)

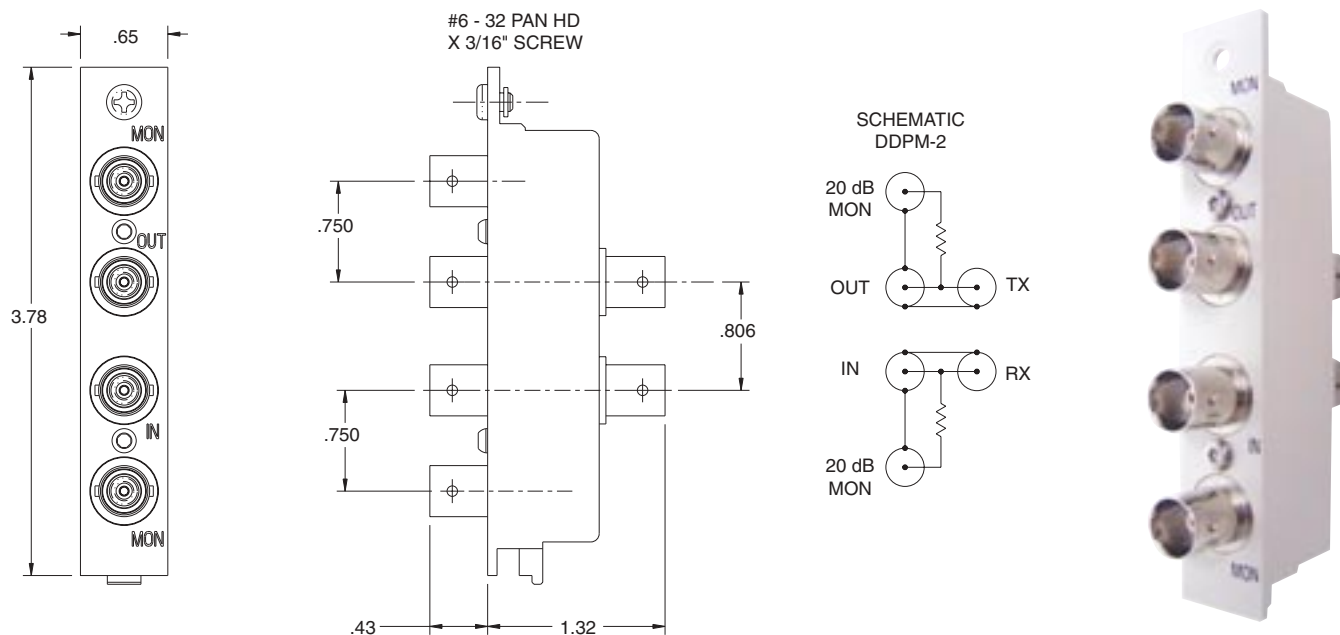


# OUTSIDE PLANT DS3 DEPLOYMENT CONNECTIVITY HARDWARE

## PASS THRU JACK MODULE WITH NON-INTRUSIVE SIGNAL MONITORING PORTS

### Module Part Number: DDPM-2

BNC style 75 ohm panel mounted coaxial parallel network with two 20 dB monitor ports



There are several basic DDPM configurations available and a wide variety of panels.

- First and foremost, these modules exhibit excellent return loss performance for the thru-ports and nominal signal strength compensation for monitor function.
- Monitoring jacks allow for sampling or electronic signal screening for digital wave attributes and overall signal clarity.
- All jacks feature BNC locking bayonet mechanism for tactile closure and full pull strength.
- Front and rear designation strips allow installers to work independently and to leave behind a written record or map of connectivity paths.
- Optional cable management bars allow for strain relief on the panel from either or both sides.
- The DDPM-2 is our standard module that allows DS3 signals to “feed through” the panel with monitor access to both the Input and Output signals.
- The DDPM-2GT is an optional Gas-tube protection variation is also available to meet outside plant 3G or under the ground hut applications where protection from lightning strike is required. The RG6 BNC straight connector is TEI P/N 105-1244-9.
- The DDPM-2UM mounts directly into a secure fiber distribution box creating an M-POP (minimum point of presence) product for a fraction of the cost of currently available products.

# OUTSIDE PLANT DS3 DEPLOYMENT CONNECTIVITY HARDWARE

## PASS THRU JACK MODULE WITH NON-INTRUSIVE SIGNAL MONITORING PORTS

The Trompeter 75 ohm Digital Distribution Panel (JSDDF2-24) contains 24 Dual Monitored Co-Location Distribution Performance Modules (DDPM-2) and functions as a co-location distribution panel between the Competitive Local Exchange Carrier (CLEC) and the Local Exchange Carrier (LEC) or Regional Bell Operating Company (RBOC) providing service to access equipment involved in the interconnection to the Internet Service Provider (ISP). These devices are also known as Shared Point of Termination (SPOT), Point of Termination (POT) panels, and/or Point of Presence (POP) panels.

The Trompeter co-location monitor panel is 3 rack units high and features designation strips on the front and rear for port marking and easy identification. Module locations are numbered front and back.

The panel is available with optional cable management bars which can be mounted to the front or rear of the panel via the rack channels.

The signal from the monitor port can be readily attached to a dB millivolt (dBmV) meter to determine power level, or to an oscilloscope to check the noise floor under the primary signal stream.

### FEATURES / BENEFITS:

**Monitor Jack:** Allows for sampling or electronic screening of the signal for digital wave attributes and overall signal clarity. Depending on the equipment that the monitor is connected to, a digital record or hard copy can be maintained to isolate line trouble at the co-location boundary.

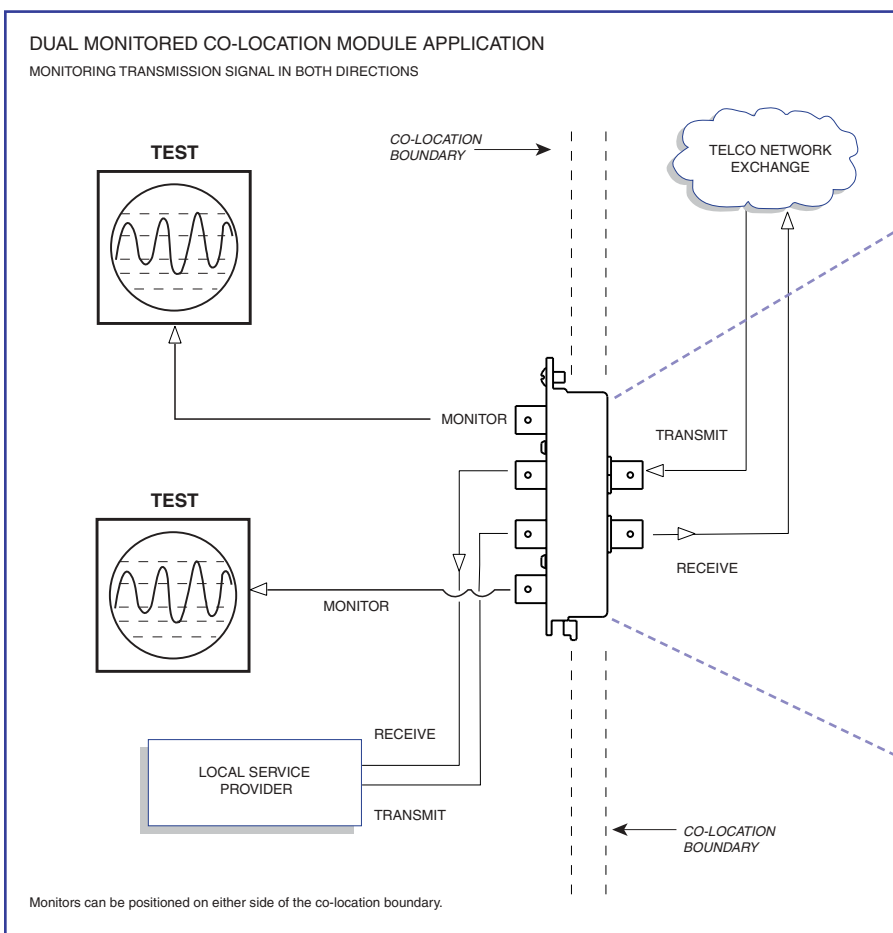
**Electrical Signal Clarity:** Excellent overall return loss performance for the thru-ports.

**BNC Jacks:** Locking bayonet mechanism for tactile closure and cable retention. All ports are conventional telephony coax jacks designed to handle 44 Mbs and higher data rates.

**A Designation Strip on Both Sides:** This feature allows the installer to position BNC plugs in the proper port without having to go to the rear of the bay, sometimes quite distant - allowing an installer to work alone.

**(Optional) Cable Management Bars:** Allows for strain relief on the panel and BNC jacks, while keeping cables neat and organized.

**Port Markings:** The ports are clearly numbered 1-24 or 1-32 front and back for clear identification.



# OUTSIDE PLANT DS3 DEPLOYMENT CONNECTIVITY HARDWARE

## WALL MOUNTED BRACKET

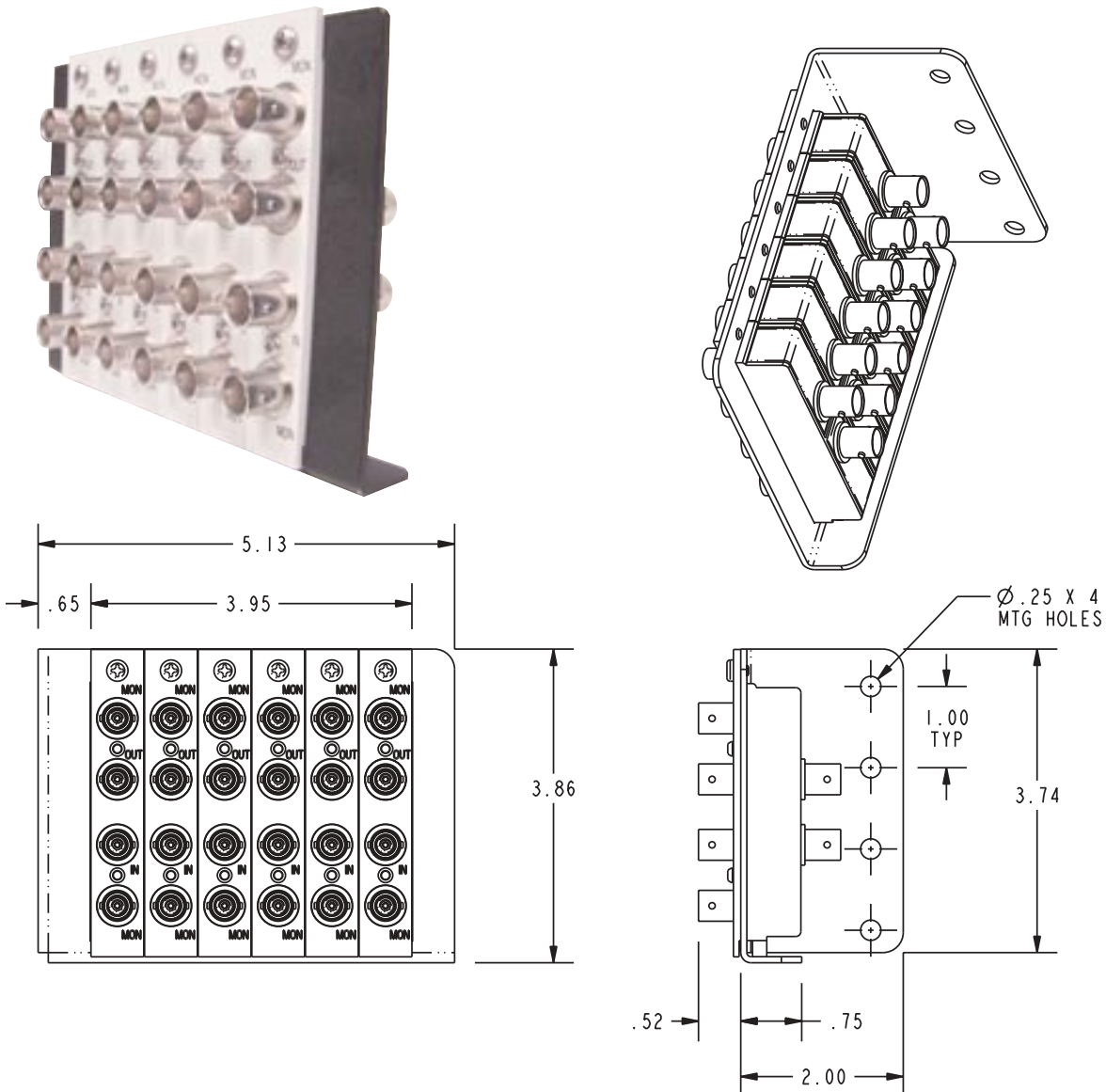
The Trompeter L-bracket is designed for use in service provider customer premise wiring closets where DS3 bandwidth in coax is being handed off to a local building for further deployment internal to the facility. As demand for bandwidth rises, particularly by business customers in an industrial park or feature rich businesses like hotels trying to attract business users, deploying bandwidth to an individual building now involves DS3 data rates (44 Mbps per line). Obviously, this is a significant step up from fractional or full T1 line capacities that have been the model so far. Typically, fiber (often deployed as STS3) is used to transport the signals from the central office to the premise wiring closet where the STS3 fiber line is segmented into multiple DS3 coaxial lines for further deployment to individual offices or floors. The L-bracket is designed to facilitate signal clarity

testing of the coaxial line within the wiring closet and is the lowest cost answer for this assignment.

Trompeter offers several ways to mount these modules outside of a cabinet or rack application. The most cost effective way is our simple "L-Bracket". This bracket can be mounted in any direction into a pegboard or wall and will hold up to six modules per bracket. This gives the customer a very economical way to have a demarcation point for his DS3 with monitor capabilities. The L-bracket is designed to be mounted to a wall board with monitor ports to either the right or the left, based on module placement.

### Module Part Number: 150-0173

Wall mounted bracket loaded with 6 DDPM-1 digital distribution performance module with dual monitor ports

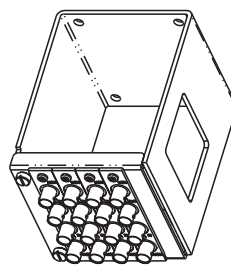
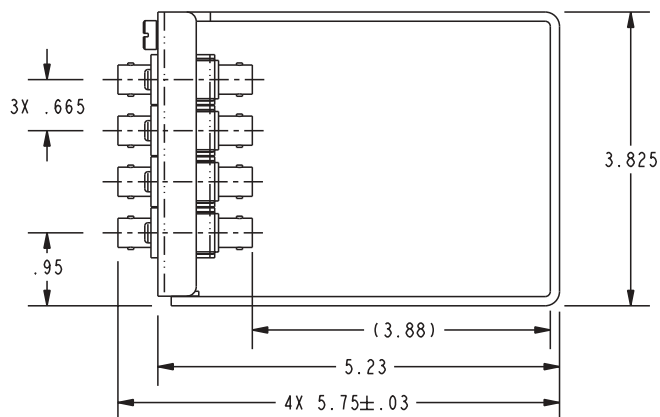


# OUTSIDE PLANT DS3 DEPLOYMENT CONNECTIVITY HARDWARE

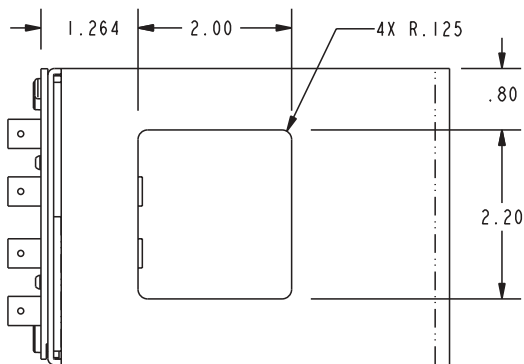
## WALL MOUNTED BRACKET

An attenuation wall-mounted bracket is the 105-2050 which is loaded with 4 DDPM-2 modules for those applications where front test port access is most convenient.

### Module Part Number: MINI-DSX 105-2050



SCALE 1/4



Coaxial cable used in outside plant broadband DS3 deployment is (1) the traditional telco Central Office variety (735 and 734 type) for interior applications that do not need additional environmental protection or (2) RG6 Quad cable which does have double shielding and other properties for outside plant environment situations. Trompeter, the industry mainstream telco BNC connector provider for most RBOC service providers, has extended its BNC plug connector offering to include this new RF6 Quad cable.

Since RF6 is so stiff (double braid and double foil will do that), Trompeter recommends the use of the 45 degree connector for "best case" cable management at the DDPM module to allow a "shipshape" dressing of the cable itself, allowing easy access to the monitor ports.

Trompeter crimp/crimp connectors are the perfect "end piece" for DS3 coaxial cable used in outside plant deployments. Their proven long term rugged performance over the last 5 decades in the Central Offices of our PSTN (public switched

telephone network) is a continuing tribute to the enduring signal clarity that is traditional in Trompeter designs.

Trompeter offers a full line of hand tools to enable the field termination of BNC crimp/crimp connectors. Be sure that you use Trompeter recommended tooling to ensure proper installation. Recommended tooling includes the hand stripper (with blades to fit the cable involved) 12 point center contact indenter 010-0098, the CT4L crimp-sleeve-over-braid crimper (with die set to match the cable involved), and various test equipment to assure a flawless termination.

For the new outside plant Trompeter DS3 installer, we recommend the TSBE001C100 tool kit. Installation training and certification is offered free of charge to Trompeter BNC connector users – email [info@trompeter.com](mailto:info@trompeter.com) or call to schedule your installer training session.



# OUTSIDE PLANT DS3 DEPLOYMENT CONNECTIVITY HARDWARE

## 19 AND 23 INCH RACK APPLICATIONS

Trompeter has developed a full line of packaging products to allow you to fully make use of the above modules. The modules can be used in most of the packaging products. The customer can order the products loaded with modules or empty and load them as needed. We developed this product line knowing that our customers would need an economical way to

terminate DS3 either in a rack and panel application such as a 19" or 23" rack, so we offer panels in either 19" or 23" wide, both in horizontal and vertical mounted configurations, with or without cable trays in the front, and up to 32 modules in a 23" rack.

### TROMPETER PART NUMBERS:

#### JSDDF2-24

19" Panel, 24 Modules

#### JSDDF2-24CM

19" Panel, 24 Modules, Cable Management Bar

#### JSDDF2-24L

23" Panel, 24 Modules

#### JSDDF2-24LCM

23" Panel, 24 Modules, Cable Management Bar

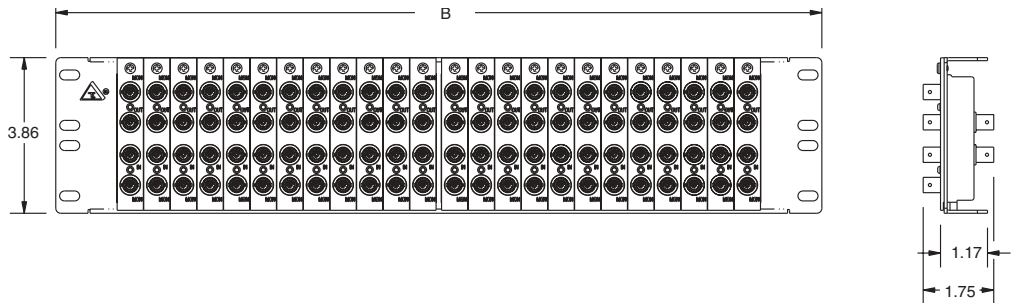
#### JSDDF2-32

23" Panel, 32 Modules

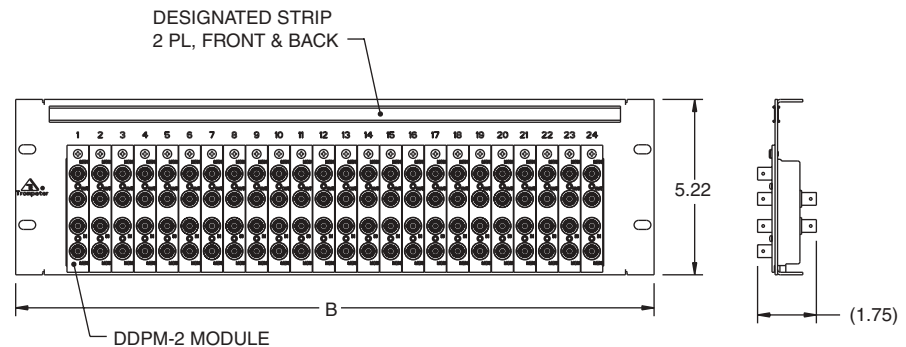
#### JSDDF2-32CM

23" Panel, 32 Modules, Cable Management Bar

### LOADED PANEL PART NUMBER: JSDDF2-S



### LOADED PANEL PART NUMBER: JSDDF2



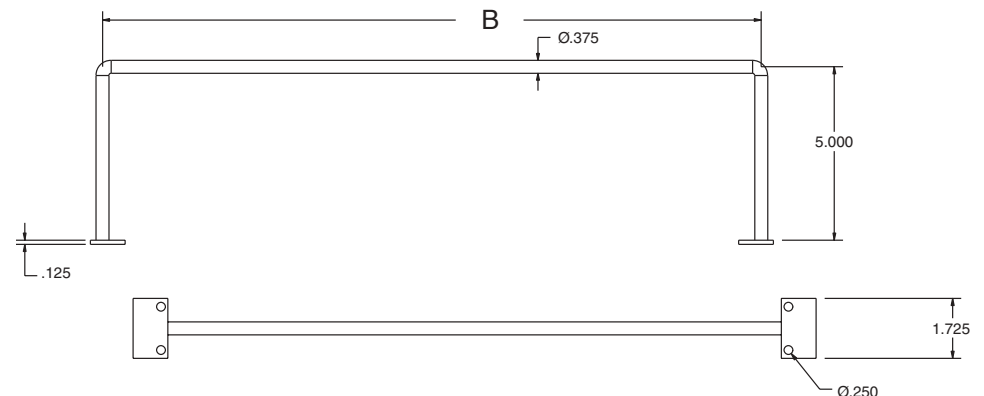
### OPTIONAL CABLE MANAGEMENT BAR

#### 152-0014-1

**B**  
19"

#### 152-0014-2

**B**  
23"



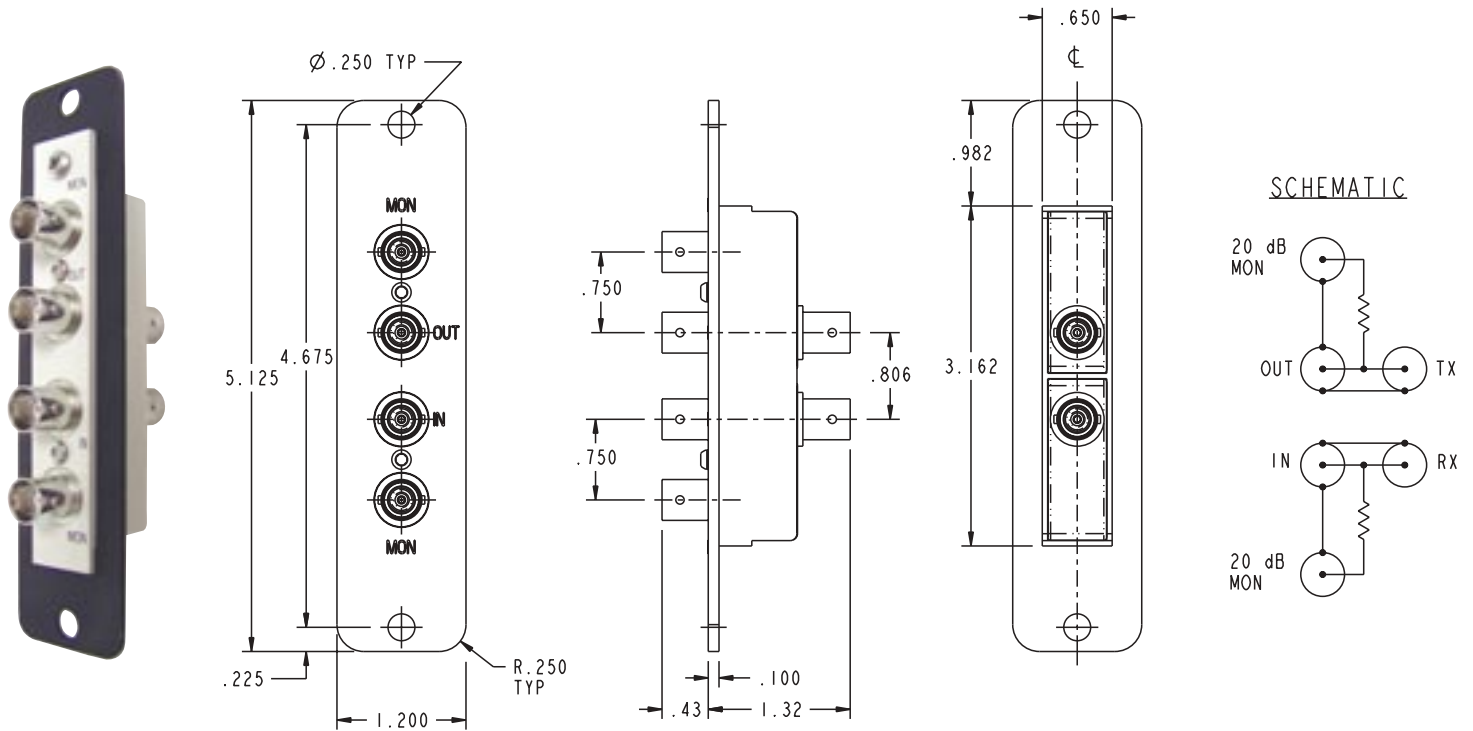
\*ALSO AVAILABLE IN 23" PANEL LENGTH

# OUTSIDE PLANT DS3 DEPLOYMENT CONNECTIVITY HARDWARE

## FIBER DISTRIBUTION BOX

### MODULE PART NUMBER: DDPM2-UM

BNC STYLE 75 OHM BOX MOUNTED COAXIAL PARALLEL NETWORK WITH TWO 20dB MONITOR PORTS INCLOSED IN A UNIVERSAL MOUNT.



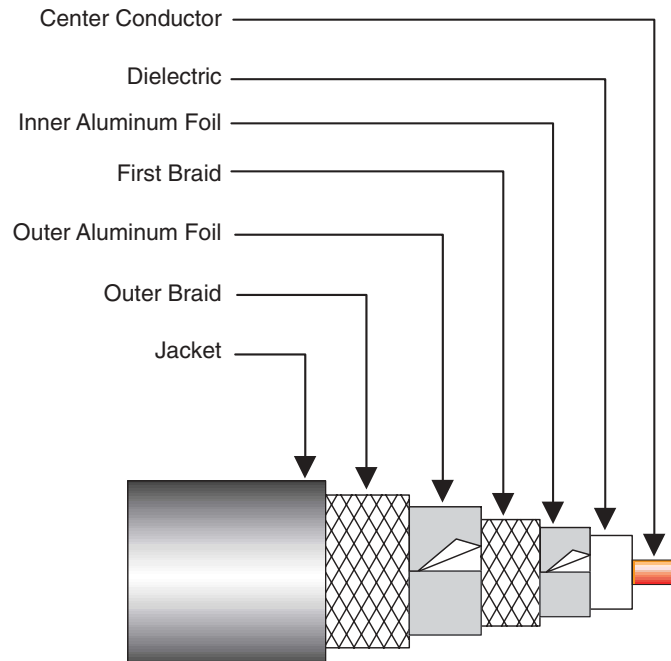
### Fiber Distribution Box

Trompeter has mounted our DDPM-2UM into a bracket that allows you to mount this module into any Fiber Distribution Box that uses the Fiber Six-Pack. This allows the Fiber Distribution Box to become a combo Fiber/Coax junction box.



## OUTSIDE PLANT DS3 DEPLOYMENT CONNECTIVITY HARDWARE

The two standard telco coax cable types are 734 (about 10%) and 735 (about 90%). For outside plant applications, a new cable type (RG6 Quad) had been developed.



**RG6 Quad Cable** - Quad Shielded Coax for Outside Plant Underground Applications (OP7380IBW)

### BNC Connector

CABLE TYPE -->	735 TYPE	734 TYPE	RG6 Quad Cable
Connector Type	026	025	030
STRAIGHT PLUG	UPL220-026	UPL220-025	UPL220-030
45° PLUG	UPLFF220-026	UPLFF220-025	UPLFF220-030
RIGHT ANGLE PLUG	UPLR220-026	UPLR220-025	UPLR220-030

For RG6 Quad Cable use Trompeter crimp die p/nCD3-2.

# OUTSIDE PLANT DS3 DEPLOYMENT CONNECTIVITY HARDWARE

## INSTALLATION TOOLS

### CABLE CUTTING TOOL

#### 700-0024

Designed to cut Coax cables without compressing dielectric or damaging center conductor



This powerful, low-cost, portable hand-held (less than 2.25 lbs.) cable stripper delivers, production quality performance, and gives you up to 250 strips per charge (7.2V Ni-Cad battery without memory effect). The replaceable, 3-level cutter head, is preset to strip your coax cable for Trompeter's 220 Series and 250 Series, Tool Crimp BNC Connectors. The cutter head has adjustable depth cutter blades for precision tuning. Precision ground, tool steel blades (hardened to Rockwell 64) give you up to 15,000 strips! Rapid Charger/Reconditioner recharges your Ni-Cad in only 1.5 hours! 1 Year Warranty.

### POWERED CABLE STRIPPER KITS

Comes with: 1 Drive, 1 Ni-Cad Battery Pak, 1 Cutter Head, 1 Rapid Charger/Reconditioner and 1 Carrying Case. Part Number Example: Stripper/Cutter Head

#### BCWS/C26T3D CUTTER HEAD GUIDE BCWS/C26T3I

Cable	Cable Group	Cable Outside Diameter	3-Blade Cut	Cable Group
		.235-.270	<b>C26T3D</b>	<b>-014/-025</b>
		.110-.160	<b>C26T3I</b>	<b>-009/-026</b>
Cable	Cable Group	Cutter Head	Crimp Die	Cable OD Range (Inches)
734 Type	<b>-025</b>	C26T3D	CD3-19	0.235 - 0.270
735 Type	<b>-026</b>	C26T3I	CD3-19	0.110 - 0.160
RG6 Quad	<b>-030</b>	(Hand Stripper Recommended)		

### HAND CABLE STRIPPING TOOL

Cable Range .10-.30"

ST1 Tool only - Requires blade cassette listed  
STC-F Cassette - Green (For Tool Crimp BNC connectors)



### CENTER CONTACT CRIMP TOOL

#### 12-Point Crimp Tool

BNC/M-BNC/Patch Plug  
(Green/Yellow Handle)

010-0098



### CRIMP TOOL

#### CT4L

Ergonomic Frame only  
(Die not included, for crimp die see below)

### CRIMP DIE FOR

75 Ohm Outer Sleeve

#### CD3-19

\* Note: Flip-flop die embosses both 734 & 735.  
Dies imprint either cavity (A/B) or hex size onto crimp sleeve. Custom dies are available for special imprints.

