TOTAL ACCESS® 1500 FT1 DP

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TOTAL ACCESS 1500 FT1 DP

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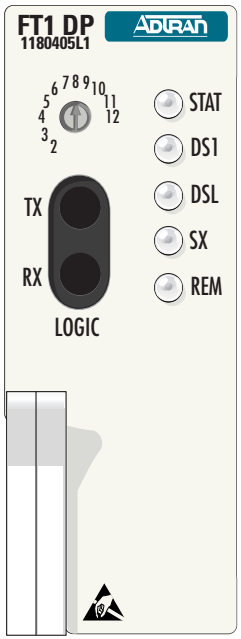


CAUTION!
SUBJECT TO ELECTROSTATIC DAMAGE OR DECREASE IN RELIABILITY.
HANDLING PRECAUTIONS REQUIRED.

STATUS LEDs

STAT	● Green	Normal operation
	● Yellow	FT1 DP is in loopback
	✳ Flashing Yellow	FNID or repeater is in loopback
DS1	● Green	Customer's equipment is connected at the FNID and synchronized
	● Yellow	Yellow Alarm has been detected at the FNID's Customer DS1 interface
	● Red	No signal detected at the FNID's Customer DS1 interface, excessive Frame Bits Error/Loss of frame synchronization
	✳ Flashing Red	Error detected at the FNID's DS1 interface
DSL	● Green	FT1 DP is synchronized with the FNID or repeater and signal quality is good
	● Yellow	FT1 DP is synchronized with the FNID or repeater and signal quality is poor
	● Red	No synchronization with the FNID or repeater
	✳ Flashing Red	Error detected on loop
SX	○ OFF	No sealing current has been detected on the local loop
	● Green	Sealing current has been detected on the local loop
REM	○ OFF	FT1 DP is operating from hardware settings
	● Green	FT1 DP is operating from craft screen settings

ROTARY SWITCH

The rotary switch is used to select the amount of bandwidth allocated via DS0 time slots.

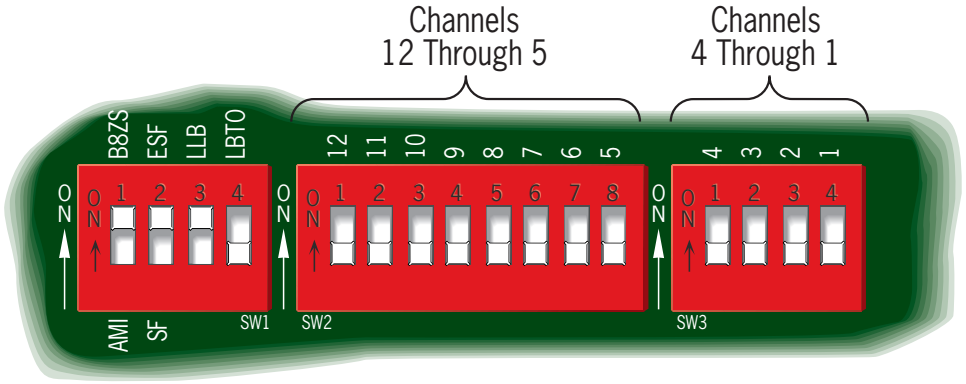
DS0s Selected	Bandwidth (kHz):
2	128
3	192
4	256
5	320
6	384
7	448
8	512
9	576
10	640
11	704
12	768

BANTAM JACKS

Provides DS0, near logic, intrusive test access to the 1st DS0 in the outbound data stream. Test sets such as a TPI 108/109 or equivalent can be used.

FT1 DP DSL CONNECTIONS

- Pin 35 — R, DSL Ring
- Pin 15 — T, DSL Tip



DIP SWITCH OPTIONS

SW1-1 Encoding
Selects the type of T1 encoding used at the FNID's DS1 interface
- Off — selects AMI encoding
- **On — selects B8ZS encoding**

SW1-2 Framing
Selects the type of T1 framing used at the FNID's DS1 interface
- Off — selects super frame
- **On — selects extended super frame**

SW1-3 Latching Loopback
Enables/disables the ability to respond to latching loopbacks (i.e. OCU or NEI loopbacks)
- Off — disables the latching loopback feature
- **On — enables the latching loopback feature**

SW1-4 Loopback Timeout
Enables/disables the loopback time-out feature
- Off — disables the 20-minute time-out feature
- **On — enables the 20-minute time-out feature**

SW2-1-8 A/B Signaling
Enables/disables A/B robbed bit signaling for channels 12 - 5
- **Off — disables A/B signaling**
- On – enables A/B signaling

SW3-1-4 A/B Signaling
Enables/disables A/B robbed bit signaling for channels 4 - 1
- **Off — disables A/B signaling**
- On – enables A/B signaling

Note: Default settings in ***bold****.*

■ For a complete Installation and Maintenance Practice faxback: (877) 457-5007, Document #666. Please have your fax number available. ■

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PRICING AND AVAILABILITY 800.827.0807
TECH SUPPORT 800.726.8663
RETURN FOR REPAIR 256.963.8722
www.adtran.com
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FT1 DEPLOYMENT CRITERIA

Insertion loss should not exceed –36.0 dB at 200 kHz

LOOP INSERTION LOSS DATA

Frequency (kHz):	Maximum Loss Data (dB):
3k	–12.0
10k	–15.0
50k	–25.5
100k	–30.0
150k	–32.75
200k	–35.25

DEPLOYMENT GUIDELINES

Loops should be designed to comply with CSA guidelines.

1. All loops are non-loaded only.
2. For loops with 26 AWG cable, the maximum loop length, including bridge tap lengths is 9 kft.
3. For loops with 24 AWG cable, the maximum loop length including bridge taps is 12 kft.
4. Any single bridge tap is limited to 2 kft.
5. Total bridge tap length is limited to 2.5 kft.
6. The total length of multi-gauge cable containing 26 AWG cable must not exceed 12 - $\{(3 * L_{26})/(9 - L_{btap})\}$ in kft where L_{26} = total length of 26 AWG, excluding bridge taps and L_{btap} = total length of all bridge taps, in kft.

ADDITIONAL GUIDELINES

- An approximation for the maximum amount of background noise on a DSL loop, measured using a 50 kilobit filter is less than or equal to 31 dBrn.
- An approximation for the maximum amount of impulse noise on a DSL loop, measured using a 50 kilobit filter, is less than or equal to 50 dBrn.
- These approximations are guidelines only and may vary slightly depending on different loops. Adhering to the guidelines should produce performance greater than a 10^{-7} BER.

Turnup Guide

1. Ensure that all of the DSL connections have been made between the FT1 DP and the FNID.
2. Install the FNID into an ADTRAN T400 single mount stand alone housing or equivalent. The FNID can be mounted in any standard T400 housing.
3. Install the FT1 DP into an ADTRAN Total Access 1500 channel bank.
4. After insertion of the FT1 DP, with the FNID installed at the remote location, its LEDs should illuminate momentarily before the FT1 DP attempts to start its training sequence, with the FNID. The FT1 DP's SX LED should be illuminated. If it is not, refer to the *Troubleshooting Guide* in this document.
5. Allow approximately one minute for the FT1 DP to synchronize with the FNID. If DSL synchronization has been achieved, the FT1 DP's DSL LED will be illuminated Green. If it is not, refer to the *Troubleshooting Guide* in this document.

Troubleshooting Guide

All FT1 DP Front Panel Indicators are Off

- Verify that the FT1 DP is properly seated in the shelf.
- Make sure power supply feeding the FT1 DP is good.
- If both of the above conditions pass, replace the FT1 DP.

Power OK but Does Not Achieve Loop Sync (DSL LED is red)

- Verify that the loop conforms with CSA guidelines (length, etc.).
- Verify that the Loop Loss at 200 kHz is not greater than 36 dB.
- Verify that noise on the DSL Loop is within acceptable limits.
- If the above conditions pass and Loop Sync is still not available, replace the unit with an FT1 DP unit known to be in good working condition.

Testing Guide

FT1 DP

- Responds to a latching OCU loopback when transmitted in the first DS0 time slot of the selected channels. Data in all selected channels is looped back toward the network, after completion.
- For local testing, a TPI 108/109, or equivalent, can be connected to the FT1 DP's test access jacks, located on the front panel of the unit. The test set must be configured for near logic.
- Loopbacks can also be initiated from the FT1 DP's loopback menu, accessible from the craft interface, using a VT100 terminal or equivalent.

FNID

- Responds to a latching NEI loopback when transmitted in the first DS0 time slot of the selected channels. Data in all selected channels is looped back toward the network, after completion.
- Loopbacks can also be initiated from the craft interface of the FT1 DP or FNID.

COMPLIANCE

Warning: *This product must be installed in a shelf or mounting that has a compatible frame ground connection on the edge finger connector. Voltages up to -200 VDC may be present on the telecommunications wiring.*

WARRANTY

Warranty for Carrier Networks products manufactured by ADTRAN and supplied under Buyer's order for use in the U.S. is ten (10) years. For a complete faxback copy of ADTRAN's *U.S. and Canada Carrier Networks Equipment Warranty*: (877) 457-5007, Document # 414.