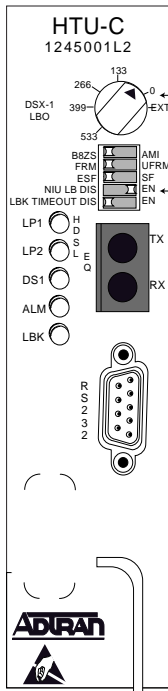




Please ensure you are properly grounded before setting any function switches.



Switch Option Settings

(arrows indicate default settings)

HTU-C M

The HTU-C M transfers the local configuration to the HTU-R when circuit synchronization is achieved. The HTU-R then sets its configuration to match the HTU-C M.

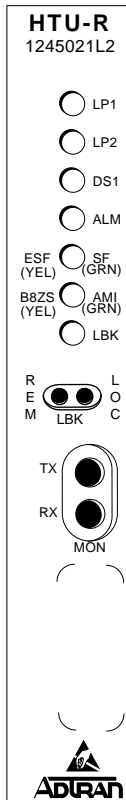
Rotary Switch

Used to select operation of the line build-out equalizer in series with the DSX-1 output.

Function	Description
EXT	Selects external line build-out ¹
0	Line length from 0-133 feet of ABAM cable
133	Line length from 133-266 feet of ABAM cable
266	Line length from 266-399 feet of ABAM cable
399	Line length from 399-533 feet of ABAM cable
533	Line length from 533-655 feet of ABAM cable

SW1

SW1-1	Loopback Timeout	Enabled	With SW1-1 at EN, loopback timeout is enabled (20 minutes). ^{2,3}
		Disabled	With SW1-1 at DIS, loopback timeout is disabled.
SW1-2	NIU Loopback	Enabled	Programs the ADTRAN HDSL system to respond to traditional T1 network interface unit (NIU) loop-up and loop-down codes.
		Disabled	
SW1-3	Manual Frame Select	SF	Frame selection
		SF	With SW1-3 at SF, superframe format is selected.
		ESF	With SW1-3 at ESF, extended superframe format is selected.
SW1-4	T1 Framing	Unframed	Selects the T1 framing mode
		Unframed	With SW1-4 at UFRM, unframed operation is selected. SW1-3 setting is ignored.
		Framed	With SW1-4 at FRM, framed operation is selected.
SW1-5	Manual Code Select	AMI	Selects alternate mark inversion or binary 8 zero substitution codes.
		AMI	With SW1-5 at AMI, alternate mark inversion is selected.
		B8ZS	With SW1-5 at B8ZS, binary 8 zero substitution is selected.



HTU-R

Function	Description
REM	Remote Loopback
	If the HTU-C M is <i>not</i> in loopback, pressing REM <i>activates</i> the loopback towards the customer. If the HTU-C M is in loopback, pressing REM <i>deactivates</i> the loopback.
LOC	Local Loopback
	If the HTU-R is <i>not</i> in loopback, pressing REM <i>activates</i> the loopback towards the customer. If the HTU-R is in loopback, pressing REM <i>deactivates</i> the loopback.

NOTE

¹ If external line build-out is selected, the signal transmitted by the HTU-C M is a 12V p-p signal. This must be considered when measuring the signal at the DSX EQ faceplate Bantam jack. The signal may appear hotter than it should be.

² Loopback timeout must be selected prior to initiating a loopback.

³ 60 and 120 minutes is selectable from the craft interface.

HDSL DEPLOYMENT GUIDELINES

The ADTRAN HDSL system is designed to provide DS1 based services over loops designed to comply with Carrier Service Area (CSA) guidelines. CSA deployment guidelines are given below.

1. All loops are non-loaded only.
2. For loops with 26-AWG cable, the maximum loop length including bridged tap lengths is 9kft.
3. For loops with 24-AWG cable, the maximum loop length including bridged tap lengths is 12kft.
4. Any single bridged tap is limited to 2kft.
5. Total bridged tap length is limited to 2.5kft.
6. The total length of multi-gauge cable containing 26-AWG cable must not exceed:

$$12 - \{(3 * L^{26}) / 9\} - L^{BTAP} \text{ (in kft)}$$

L^{26} = Total length of 26-AWG cable excluding bridged taps (in kft)

L^{BTAP} = Total length of all bridged taps (in kft)

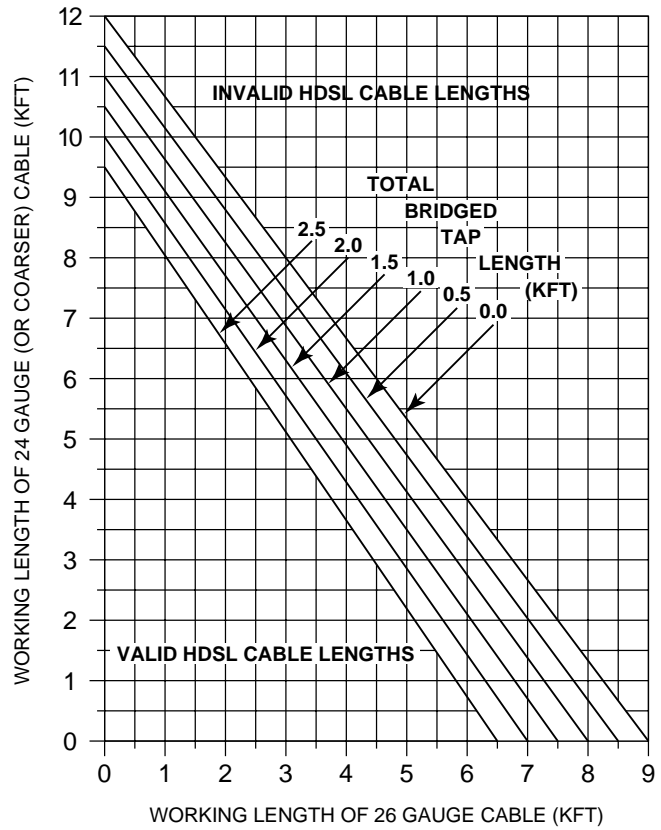
This deployment criteria is summarized in the chart shown.

Recommended maximum local loop loss information for PIC cable at 70°F, 135Ω, resistive termination is listed in the provided table.

An approximation for maximum amount of wideband noise on a DSL local loop as measured by a 50kbps filter is ≤ 31dBm.

An approximation for maximum amount of impulse noise on a DSL local loop as measured by a 50kbps filter is ≤ 50dBm.

NOTE *These approximations are to be used as guidelines only and may vary slightly on different loops. Adhering to the guidelines should produce performance in excess of 10⁻⁷ BER.*



NOTE *When deployment requires the use of two HREs, the HTU-C M can be deployed with two Low Voltage T400 HREs (1244.041L2) and one Low Voltage HTU-R (1245.021L1 or 1245.026L1).*

Loop Insertion Loss

Frequency (Hz)	Maximum Loss (dB)
3000	12.0
10,000	15.0
50,000	25.5
100,000	30.0
150,000	32.75
200,000	35.25

*ADTRAN Technical Support (800) 726-8663
Standard support hours, Monday-Friday, 7am-7pm CST
Emergency Support 7 days/week, 24 hours/day*