HDSL
T200 HRE
P/N: 1247041L1
CLEI: T1RPAABB_ _

61247041L1-22A

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

INTRODUCTION

The ADTRAN® T200 HDSL Range Extender (T200 HRE, P/N 1247041L1) extends the effective range of an HDSL-based T1 circuit.

The T200 HRE can effectively double the deployment range of standard HDSL and provide carrier service area (CSA)-compliant loops on both sides of the range extender. A T200 HRE is used in conjunction with any span-powering T1 HDSL transceiver unit for the central office (HTU-C) and low voltage HDSL transceiver unit for the remote end (HTU-R).

FRONT PANEL LEDS

Label	Status	Description
PWR	○ Off	No span power is present
	● Green	Span Power is present
NET LP1/LP2	○ Off	No sync with next upstream device, HTU-C or HRE#1
	● Green	Sync with good signal quality (> 7)
	● Yellow	Sync with marginal signal quality (1 to 7)
	● Red	Sync with poor signal quality (0)
	☼ Flashing	Fast Yellow flash for NET LP1 when span powering present, but no synchronization. If pulse attenuation (Loss of Current System Status Screen) is above 30 dB or a CRC error was received at the NET LP1/LP2 receiver, the NET LP1/LP2 LED flashes green, Yellow, or Red as determined by the signal quality. If pulse attenuation is above 30dB and a CRC error was received at the same time, the LED flashes twice as fast.
CUST LP1/ LP2	○ Off	No sync with downstream device, HTU-R or HRE#2 on CUST LP1/LP2
	● Green	Sync with good signal quality (> 7)
	● Yellow	Sync with marginal signal quality (1 to 7)
	● Red	Sync with poor signal quality (0)
	☼ Flashing	If pulse attenuation (Loss of Current System Status Screen) is above 30dB or a CRC error was received at the CUST LP1/LP2 receiver, the CUST LP1/LP2 LED flashes green, Yellow, or Red as determined by the signal quality. If pulse attenuation is above 30dB and a CRC error was received at the same time, the LED flashes twice as fast.
LL/RL	● Green	HRE customer loopback active
	● Yellow	HRE network loopback active

Loopback

- During a loopback toward the network, all **NET** and **CUST LP1/LP2** LEDs remain solid. The **LBK** LED displays yellow.
- During a loopback toward the customer, all **NET** and **CUST LP1/LP2** LEDs remain solid. The **LBK** LED displays green. The **DSI** LED on the HTU-R flashes during this loopback.

CARD EDGE PINOUTS

Pin	Description	Pin	Description
1, 11, 27	Chassis Ground	17	–48 V Return (Ground)
5	HDSL Loop 1 Tip (Customer)	41	HDSL Loop 2 Tip (Network)
7	HDSL Loop 1 Tip (Network)	47	HDSL Loop 2 Ring (Network)
13	HDSL Loop 1 Ring (Network)	49	HDSL Loop 2 Ring (Customer)
15	HDSL Loop 1 Ring (Customer)	55	HDSL Loop 2 Tip (Customer)

WIRING DIAGRAM FOR HDSL TECHNOLOGY

CP1	Circuit Pack/Pin #	Cable/Wire	Housing Color	HDSL/HRE T400/T200
	5-15	Blue	White	Customer, Loop 1
	7-13	Orange	Red	Network, Loop 1
	41-47	Orange	White	Network, Loop 2
	49-55	Green	Red	Customer, Loop 2
CP2				
	5-15	Green	White	Customer, Loop 1
	7-13	Brown	Red	Network, Loop 1
	41-47	Brown	White	Network, Loop 2
	49-55	Slate	Red	Customer, Loop 2
CP3				
	5-15	Blue	Red	Customer, Loop 1
	7-13	Blue	Black	Network, Loop 1
	41-47	Orange	Black	Network, Loop 2
	49-55	Blue	Yellow	Customer, Loop 2
CP4				
	5-15	Green	Black	Customer, Loop 1
	7-13	Yellow	Orange	Network, Loop 1
	41-47	Brown	Black	Network, Loop 2
	49-55	Slate	Black	Customer, Loop 2
	Order Wires	Slate	White	
	Spare Pair	Green	Yellow	

Note: Wiring information is for housing 1150043L1, L2 (L1– aircore cable, L2– gel-filled core cable).

For more information, refer to the Installation and Maintenance Practice (P/N 61247041L1-5) available online at www.adtran.com.

PRICING AND AVAILABILITY 800.827.0807
TECH SUPPORT 800.726.8663
RETURN FOR REPAIR 256.963.8722
www.adtran.com
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ADTRAN T200/T400 REPEATER CABINETS

Part #	Description	HRE Capacity	CLEI	Material
1150090L1 See Note	24-Slot Pad Mount Gel Stub	24	T1MJ4U0M	Aluminum
1150090L2 See Note	24-Slot Pole Mount Gel Stub	24	T1MJ5U0M	Aluminum
1150043L1	4-Slot Air Stub	4	DDMOAD01	Stainless Steel Dome
1150043L2	4-Slot Gel Stub	4	DDMOBD01	Stainless Steel Dome
1150087L1	T400 Outdoor Repeater Housing	1	DDMOJHD1	Valox PBT Plastic

Note: These cabinets are still supported, but are no longer available for purchase.

TESTING THE SLOT

To test the slot, use a Test Access Card (TAC, P/N 1244065L1) or a Test Access Module (TAM, P/N 1245065L1). To insert the card, hold it with the index finger through the finger hole while viewing the edge of the card so that **SW1** is facing to the right. The edge of the card corresponds to the faceplate of the T200 HRE. Insert the card into the slot with the same orientation as the T200 HRE.

TESTING THE CO-PAIRS

Loop Back

1. To loop back the circuit, put **SW1** in the **LOOP BACK** position. This loops the circuit back to the CO and to the field.

Loop Thru

2. To loop thru the CO pairs to the field pairs, put **SW1** in the **LOOP THRU** position. This bridges the circuit pairs.

Short

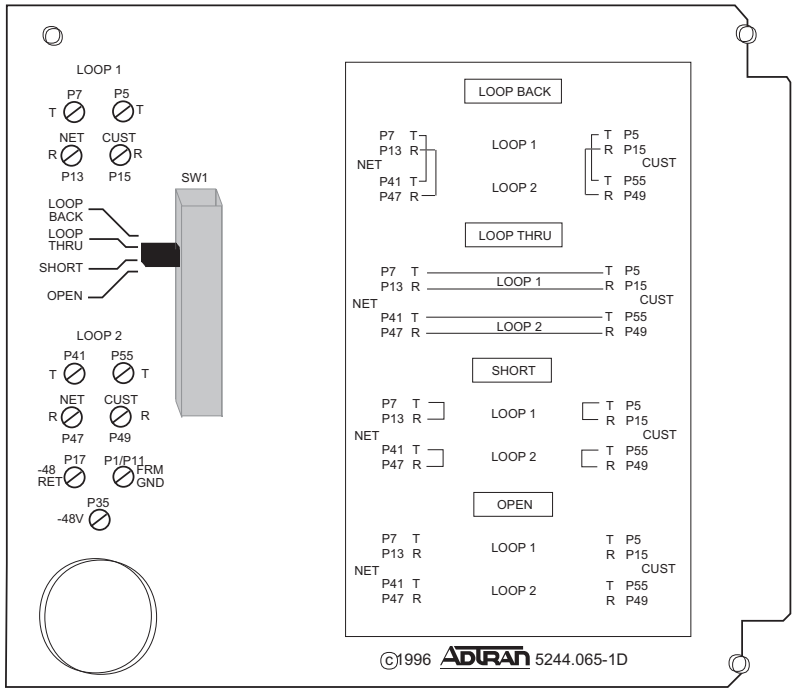
3. To short the CO pairs, put **SW1** in the **SHORT** position. This connects transmit to receive on each loop.

Open

4. To open the circuit, put **SW1** in the **OPEN** position. This allows for a voltage measurement across pairs.

AVAILABLE ACCESS

Label	Description
P7	LOOP 1 Transmit towards NET
P13	LOOP 1 Receive towards CUST
P5	LOOP 1 Transmit towards CUST
P15	LOOP 1 Receive towards CUST
P41	LOOP 2 Transmit towards NET
P47	LOOP 2 Receive towards NET
P55	LOOP 2 Transmit towards CUST
P49	LOOP 2 Receive towards CUST
P17	–48 RET
P1, P11	Frame Ground
P35	–48 V



COMPLIANCE

Refer to the *HDSL T200 HRE Compliance Notice* (P/N 61247041L1-17) for detailed compliance information.