xDSL POTS Splitter
Outdoor Ancillary Device

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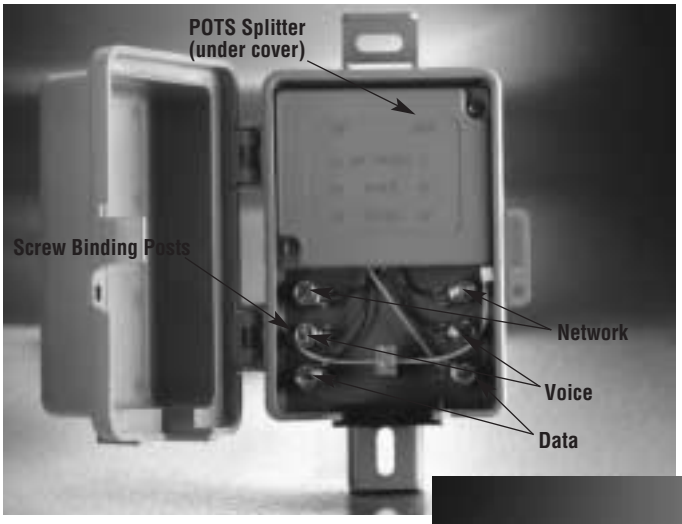

Photos
DSL 66
DSL 67

Features / Benefits

- Outdoor housing for wall or conduit mounting
- Wiring terminals for each splitter port (NETWORK, VOICE, DATA)
- ANSI T1.413 compliant
- UL-listed to U.S. and Canadian safety standards
- FCC Part 68 compliant
- Environmentally hardened
- Can be used in wiring closets
- Maintenance test signature included as standard
- ADSL and VDSL configurations available
- Other configuration options available upon request

Description

Corning Cable Systems' xDSL POTS Splitter Outdoor Ancillary Device is designed for use at the subscriber premises. xDSL represents Digital Subscriber Line, which provides high-bit-rate digital information over telephone subscriber lines. The term "POTS" means Plain Old Telephone Service. The POTS Splitter is a passive device which allows both voice and data signals to travel over the telephone line. This device splits the combined signal to provide separate outputs for both phone and data.

Mounting Location

This device can be externally mounted on a wall or conduit. It has wiring terminals for each of the three splitter ports making it extremely versatile for wiring to any station protector or Network Interface Device (NID) at the subscriber premise.

The xDSL POTS Splitter Outdoor Ancillary Device is available for ADSL (Asymmetrical Digital Subscriber Line) or VDSL (Very-High-Data-Rate Digital Subscriber Line).

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ADSL Technical Specifications

Electrical (Complies with ANSI T1.413 Issue 2 Annex E)	
DC Loop Current	0 to 100 mA
DC Loop Voltage (tip-to-ring)	0 to -60 VDC
Ringing Signals	103 V_{rms} superimposed on the DC Loop Voltage, 20 to 30 Hz
DC Resistance	≤ 25 ohms, POTS tip-to-ring with Line port (U-R) shorted
Insertion Loss	≤ 1.0 dB; short loop, ZTc = 900, ZTr = 600, 1004 Hz ≤ 0.75 dB; long loop, ZTc = 900, ZTr = 600, 1004 Hz
Attenuation Distortion (Voice Band), increase relative to Insertion Loss at 1004 Hz	+1.5 to -1.5; 200 - 3.4 kHz, short loop, ZTc = 900, ZTr = 600 +2.0 to -2.0; 3.4 - 4.0 kHz, short loop, ZTc = 900, ZTr = 600 -0.5 to -1.5; 200 - 3.4 kHz, long loop, ZTc = 900, ZTr = 600 +1.0 to -1.5; 3.4 - 4.0 kHz, long loop, ZTc = 900, ZTr = 600
Delay Distortion (Voice Band) increase	≤ 200 µs; 600 - 3.2 kHz, short loop, ZTc = 900, ZTr = 600 ≤ 250 µs; 200 - 4.0 kHz, short loop, ZTc = 900, ZTr = 600 ≤ 200 µs; 600 - 3.2 kHz, long loop, ZTc = 900, ZTr = 600 ≤ 250 µs; 200 - 4.0 kHz, long loop, ZTc = 900, ZTr = 600
Return Loss (Voice Band)	> 6 dB ERL, > 5 dB SRL-L, > 3 dB SRL-H; short and long loop > 2 dB SRL-H; short and long loop, single frequency
Longitudinal Balance, Two Port Technique, POTS to Line Port (U-R) and Line Port (U-R) to POTS	> 58 dB; 200 - 1.0 kHz > straight line from 58 dB @ 1 kHz to 53 dB @ 3.0 kHz, Bias 25 mA DC
Tip-to-Ring Capacitance, POTS Port	20 ≤ C ≤ 115 nF; 20 - 30 Hz (Note: T1.413 Issue 2 requires ≤ 90 nF, plans are to increase this in Issue 3 to ≤ 115 nF)
Capacitance to Ground, POTS Port	≤ 1.0 nF; 20 - 30 Hz
ADSL Band Attenuation	> 65 dB; 30 - 300 kHz, ZTr = 600 > 55 dB; 300 - 1104 kHz, ZTr = 600
Input Impedance	≤ 0.25 dB; 30 - 1104 kHz, ZTr = 600
Environmental	
Lightning Surge	GR-1089-CORE Level 1 and Level 2 surge
Power Cross	GR-1089-CORE First and Second Level AC Power Fault Immunity
Operating Temperature	-40 to +65°C (-40 to 149°F)
Relative Humidity	0 to 95%, non-condensing
Safety	
UL-listed to U.S. and Canadian safety standards	
FCC Part 68 compliant	

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VDSL Electrical Technical Specifications

Network Environment	
Frequency Spectrum	POTS Passband: DC - 4 K ISDN Passband: 8 k - 120 k Stopband: 800 k - 10 MHz
Test Terminations (ZTR) ohms	POTS = 600 ohms ISDN (2B1Q) / LINE = 100 ohms ISDN (4B3T) / LINE = 100 ohms VDSL = through HPF
Maintenance / Test Signatures	None
DC Blocking / HPF	Optional
Environmental Considerations	-40 to 85°C (-40 to 185°F)
DC Characteristics	
Series Resistance	6 ohms max, measured from tip to ring on VOICE with LINE shorted
Insulation Resistance	10 Mohms min. @ 100 VDC between terminals or terminal to ground
Operating Voltages	60 VDC with 100 V_{rms} superimposed
Operating Currents	150 mA with on degradation of performance characteristics
Capacitance	30 nF max. tip to ring
Passband (Voiceband) Characteristics	
Insertion Loss	1.0 dB (600 ohms) max in POTS 1.0 dB (100 ohms) max in ISDN
Return Loss	> 15 dB (600 ohms) in POTS > 15 dB (100 ohm) in ISDN
Longitudinal Balance	> 57 dB in POTS and ISDN
Stopband (DSL Band) Characteristics	
DSL Attenuation	60 dB min; 800 k - 10 MHz

Product Specifications

Dimensions (H x W x D)	2.6 in x 3.5 in x 4.8 in (66 mm x 89 mm x 122 mm)
Weight	0.40 lb (0.18 kg)

Ordering Information

SPS-H70-SR1	ADSL POTS Splitter Outdoor Ancillary Device
SPS-H70-NL6	VDSL POTS Splitter Outdoor Axcillary Device

Other configuration options available upon request.

TIP		RING
●	NETWORK	●
●	VOICE	●
●	DATA	●

Wiring Specification for Screw Binding Posts

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