

ADSL Splitter Series ALS-R50

Rack Type Splitter

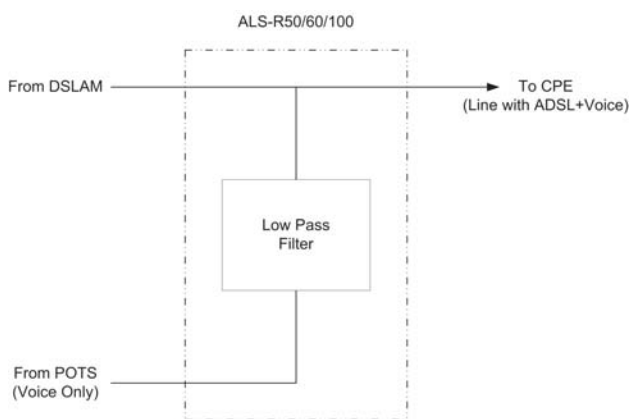


The ALS-R50 rack connections are organized into two-card sets. Each physical card provides 24 loops. A two card set provides 48 loops. Each card set provides high density connections to the central office DSLAM using 2-50 pin (2.54mm pitch) locking header connector and ribbon cables. Each ribbon Connector supports 24 loops. POTS and line connections are provided via two sets each of 12x4 wire wrap terminals.

Features

- 6U high 19" Rack
- Consists exclusively of all passive elements
- Designed for implementation of ADSL CO application
- Handles all POTS loop current from 0mA to 100mA
- If the power supply or ATU-C/ATU-R fails, telephone service on the ADSL line will operate normally
- Provides excellent isolation between DSL and POTS
- Up to 16 cards (384 loop max)

Application



Specifications

Standard	Annex E.2 of ITU-T G.992.1	
Impedance	900 ohms	
Insertion Loss	1004Hz short loop	1dB
	1004Hz Long loop	0.75dB
Attenuation distortion	200 to 3.4KHz short loop	-1.5 — 1.5dB
	3.4 to 300KHz short loop	-2 — 2dB
	200 to 3.4KHz long loop	-1.5 — 0.5dB
	3.4 to 300KHz long loop	-1.5 — 1dB
Cut off frequency	-3dB	8KHz
ADSL band	30 — 300KHz	-65dB
Attenuation	300 — 1104KHz	-55dB
Delay Distortion	600 — 3.2KHz	200us
	200 — 4KHz	250us
Return Loss	ERL	8dB
	SRL-L	5dB
	SRL-H	5dB
Common Mode Rejection Ration	600 — 3.2KHz	-100dB
DC Resistance	20Ohms	
Isolation resistance to	5M Ohms	
Longitudinal	200 — 1KHz	-60dB
	1 — 3KHz	-60dB
DC Current carrying capacity	100mA	
Environment	Temperature	-10 — 70°C (Operating); -15 — 80°C (Storage)
	Humidity	0 — 90% non condensing
Dimensions(WxDxH)	434mm x 285mm x 265.6mm	
Weight	18kg	

Ordering Info

ALS-R50-P	ADSL Line Splitter Rack, for CO application, w/wire wrap and 50pin locking ribbon cable connections
ALS-R50 24P-11 Card	ADSL Line Splitter Card, 24 Loops, 600 ohm, 8k Hz

ADSL Splitter Series ALS-R60



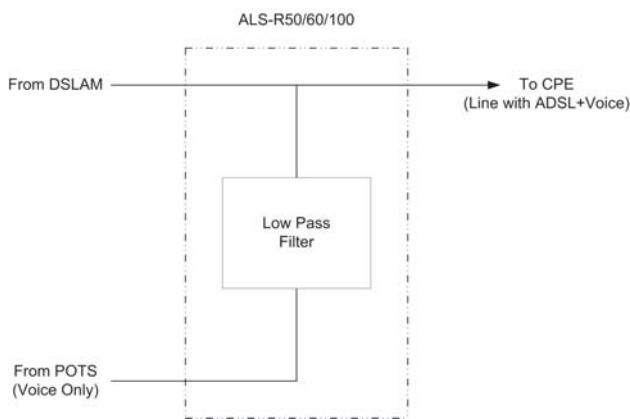
Rack Type Splitter

The ALS-R60 is a rack mount solution for central office or service providers, containing up to 20 cards with 32 each ADSL line splitters which provide low-pass filters designed to provide POTS (Plain Old Telephone System) service to a line that is utilizing ADSL technology. This device is designed to eliminate interference to POTS equipment by blocking the high frequency ADSL signal (20 KHz-12 MHz).

Features

- 8U high 19" Rack
- Consists exclusively of all passive elements
- Designed for implementation of ADSL/ ADSL2/ ADSL2+ CO application
- Handles all POTS loop current from 0mA to 100mA
- If the power supply or ATU-C/ATU-R fails, telephone service on the ADSL line will operate normally
- Provides excellent isolation between DSL and POTS
- Up to 20 cards (640 loop max)

Application



Specifications

Standard	Annex E.2 of ITU-T G.992.3	
Impedance	900 ohms	
Insertion Loss	1004Hz short loop	1dB
	1004 Hz Long loop	0.75dB
Attenuation distortion	200 to 3.4Khz short loop	-1.5 — 1.5dB
	3.4 to 300KHz short loop	-2 — 2dB
	200 to 3.4KHz long loop	-1.5 — 0.5dB
	3.4 to 300KHz long loop	-1.5 — 1dB
Cut off frequency	-3dB	8Khz
ADSL band	30 — 300KHz	-65dB
Attenuation	300 — 1104KHz	-55dB
Delay Distortion	600 — 3.2KHz	200us
	200 — 4KHz	250us
Return Loss	ERL	8dB
	SRL-L	5dB
	SRL-H	5dB
Common Mode Rejection Ration	600 — 3.2KHz	-100dB
DC Resistance	20Ohms	
Isolation resistance to Longitudinal	200 — 1KHz	-60dB
	1 — 3KHz	-60dB
DC Current carrying capacity	100mA	
Environment	Temperature	-10 — 70°C (Operating); -15 — 80°C (Storage)
	Humidity	0 — 90% non condensing
Dimensions(WxDxH)	436mm x 300mm x 300mm	
Weight	18kg	

Ordering Info

ALS-R60-8	ADSL Line Splitter Rack, for CO application, w/wire wrap and IDC 68pins cable connections
ALS-R60 32P-11 Card	ADSL Line Splitter Card, 32 Loops, 900 ohm, 8KHz

ADSL Splitter Series ALS-R100

Rack Type Splitter



The ALS-R100 is a rack mount solution for central office or service providers, which nests up to 3 cards containing 32 each ADSL line splitters or up to a maximum 96 loops. The splitter provides low-pass filters designed to provide POTS (Plain Old Telephone System) service to a line that is utilizing ADSL technology. This device is designed to eliminate interference to POTS equipment by blocking the high frequency ADSL signal (20 KHz~1.1MHz). The design of the ALS-100 ensured that when maintenance job is performed on single loop, any insertion or removal will not cause any interruption on any telephone service for any users on this card module.

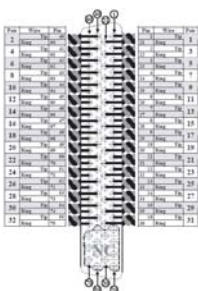
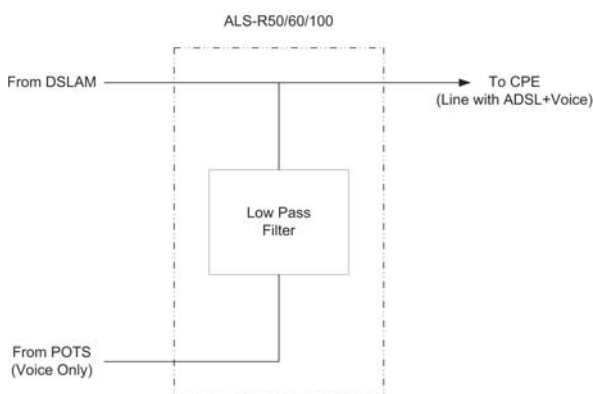
Features

- 1U high 19" Rack, supports stacking
- Consists exclusively of all passive components
- Designed for implementation of ADSL CO application
- Handles all POTS loop current from 0mA to 100mA
- If the power supply or ATU-C/ATU-R fails, telephone service on the ADSL line will operate normally
- Provides excellent isolation between DSL and POTS
- Up to 3 slots for 32 loops line card (96 loop max)
- When the telephone service is idle or occupied, any insertion or removal of the card module will not cause any service break

Specifications

Standard	Annex E.2 of ITU-T G.992.3	
Impedance	900 ohms	
Insertion Loss	1004Hz short loop	1dB
	1004 Hz Long loop	0.75dB
Attenuation distortion	200 to 3.4KHz short loop	-1.5 — 1.5dB
	3.4 to 300KHz short loop	-2 — 2dB
	200 to 3.4KHz long loop	-1.5 — 0.5dB
	3.4 to 300KHz long loop	-1.5 — 1dB
Cut off frequency	-3dB	8KHz
ADSL band	30 — 300KHz	-65dB
Attenuation	300 — 1104KHz	-55dB
Delay Distortion	600 — 3.2KHz	200us
	200 — 4KHz	250us
Return Loss	ERL	8dB
	SRL-L	5dB
	SRL-H	5dB
Common Mode Rejection Ration	600 — 3.2KHz	-100dB
DC Resistance	20Ohms	
Isolation resistance to	5M Ohms	
Longitudinal	200 — 1KHz	-60dB
	1 — 3KHz	-60dB
DC Current carrying capacity	100mA	
Environment	Temperature	-10 — 70°C (Operating); -15 — 80°C (Storage)
	Humidity	0 — 90% non condensing
Dimensions(WxDxH)	443mm x 313mm x 44.5mm	
Weight	card:1.2kg; empty chassis: 4.15kg;	
	total: 7.75kg	
Compliance	IEC61000-4-5 and FCC part 68	

Application



PIN Assignment ALS-R100-32P

Ordering Info

ALS-R100-CH	ADSL/VDSL Line Splitter Rack, for CO application, w/wire wrap 78 pin
ALS-R100-32P	ADSL/VDSL Line Splitter Card, 32 Loops, 600 ohm, 8k Hz

ADSL Splitter Series ALS-P10



ADSL MDF Type Splitter

The ALS-P10 filters can be directly plugged into the existing terminals of the CO one by one, as needed, thus eliminating need for extra terminal blocks and cabling. This leads to lower costs compared with ordinary splitters, which require operators to install large splitter racks and equipment awaiting presumable future use. With Siemens/ Krone type terminals, no extra cabling or terminal blocks are needed at all; with Krone LSA Plus terminals only minor new cabling are needed. The plug type filters are easy to install onto the terminal blocks; no tools are needed.

Filters act like disconnection plugs: the contacts inside the terminal are disconnected and the filter connects in series to the pair. Individual filters can be plugged adjacent to each other and they don't block neighboring pairs from insertion of new wires. Thus ADSL can be connected to subscribers independently, which is an asset. The plug type splitter requires the space of two pairs of LSA Plus terminal block.

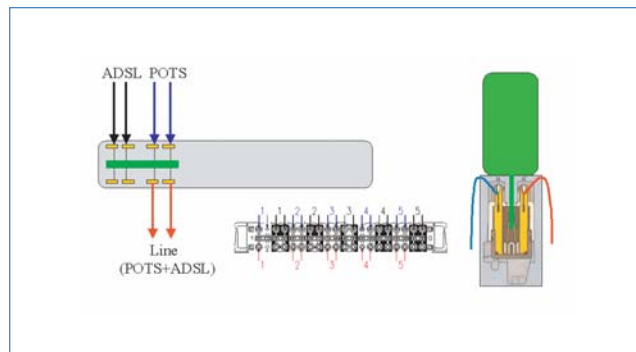
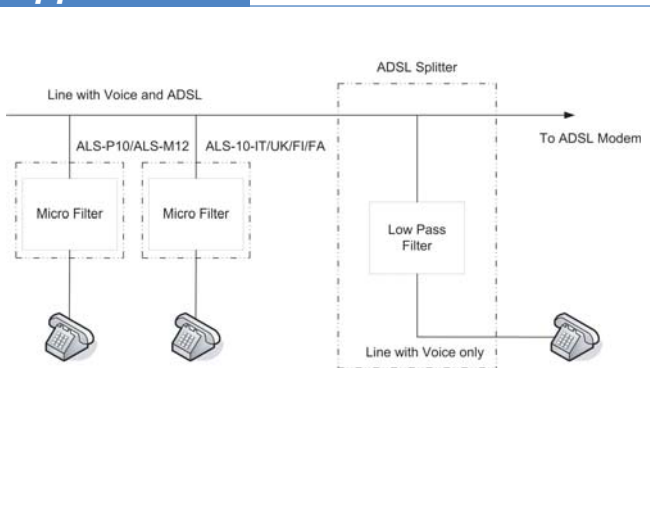
Features

- Individual splitter
- Integrates directly in MDF, no racks required
- Minimum number of contact points
- POTS service available with splitter removed (make-before-break)
- Various splitter designs available (POTS, ISDN, ...)
- Tinned Krone LSA Plus test plug reed connectors

Specifications

Filter Type	Low pass	corner freq. 7kHz (± 1 kHz), optimal matching 600ohms, DC path max. 100mA
	High pass	corner freq. 22kHz (± 2 kHz), optimal matching 135ohms, no DC path
Over voltage	Filter adapted to POTS voltages (max. ± 200 V)	
Dimensions(WxDxH)	18mm x 104mm x 20mm	
Weight	45g	

Application



Ordering Info

ALS-P10 ADSL MDF Type Splitter

ADSL Splitter Series ALS-12/ ALS-M12

ADSL Splitter and Micro Filter

The ALS-12/ ALS-M12 are low-cost, compact, passive low-pass filters designed to provide POTS (Plain Old Telephone System) service to a line that is utilizing ADSL/VDSL technology. This device is designed to eliminate interference to POTS equipment by blocking high frequency energy (20 KHz~12MHz).



ALS-12

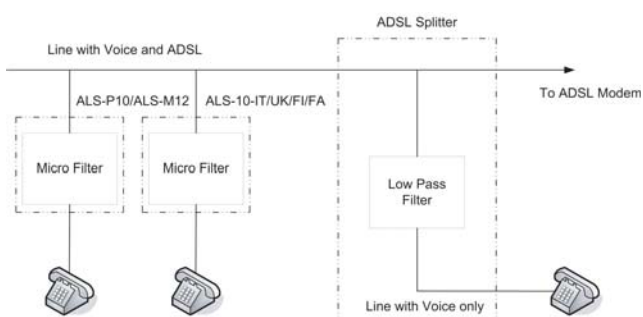


ALS-M12

Features

- Compact size
- Consists exclusively of all passive elements
- Designed for implementation of ADSL CPE application
- Handles all POTS loop current from 0mA to 100mA
- If the power supply or ATU-C/ATU-R fails, telephone service on the ADSL line will operate normally
- Provides excellent isolation between DSL and POTS
- The POTS splitter at remote end shall provide the RJ-11 connector for ATU-R/VTU-R line interface
- The POTS splitter and Low-pass filter shall provide the RJ-11 connectors for ADSL/VDSL line interfaces as well as POTS interface of splitter/Low-pass filter at remote end

Application



Specifications

Standard	Annex E.2 of ITU-T G.992.3	
Impedance	600 Ohms	
Insertion Loss	1004Hz short loop	1dB
	1004 Hz Long loop	0.75dB
Attenuation distortion	200 to 3.4KHz short loop	-1.5 — 1.5dB
	3.4 to 300KHz short loop	-2 — 2dB
	200 to 3.4KHz long loop	-1.5 — 0.5dB
	3.4 to 300KHz long loop	-1.5 — 1dB
Cut off frequency	-3dB	10KHz
ADSL band Attenuation	30 — 300KHz	65dB
	300 — 1104KHz	55dB
Delay Distortion	600 — 3.2KHz	200us
	200 — 4KHz	250us
Return Loss	ERL	6dB
	SRL-L	5dB
	SRL-H	3dB
Common Mode Rejection Ration	600 — 3.2KHz	-100dB
DC Resistance	20Ohms	
Isolation resistance to Longitudinal	5MOhms	
	200 — 1KHz	58dB
	1 — 3KHz	53dB
DC Current carrying capacity	100mA	
Environment	Temperature	-10 — 70°C (Operating); -15 — 80°C (Storage)
	Humidity	0 — 90% non condensing
Dimensions(WxDxH)	ALS-12	45mm x 34mm x 24mm
	ALS-M12	45mm x 34mm x 24mm
Weight	ALS-12	70g
	ALS-M12	70g

Ordering Info

ALS-12	ADSL Line Splitter for ADSL/VDSL CPE application, 600 ohm, 8K Hz , DSL is RJ-11
ALS-12-C	ADSL Line Splitter with surge protector for ADSL/VDSL CPE application, 600 ohm, 8K Hz , DSL is RJ-11
ALS-M12	The ADSL/ VDSL micro Filter

ADSL Splitter Series ALS-M10-IT/ UK/ FI/ FA



ALS-M10-IT(ITALY)



ALS-M10-UK(UK)

Regional ADSL/VDSL Splitters and Micro Filter

The ALS-10-IT/ UK/ FI/ FA are low-cost, compact, passive low-pass filter designed to provide POTS (plain Old Telephone System) service to a line that utilizing ADSL technology. This device is designed to eliminate interference to POTS equipment by blocking high frequency energy (20 KHz~1.1MHz).



ALS-M10-FI(Finland)



ALS-M10-FA(FRANCE)

Features

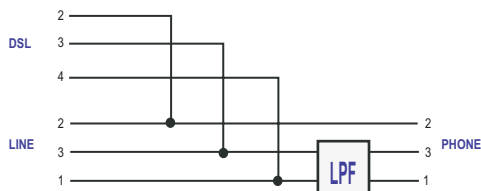
- Compact size
- Consists exclusively of all passive components
- Designed for implementation of ADSL/VDSL CPE application
- Handles all POTS loop current from 0mA to 100mA
- If the power supply or ATU-C/ATU-R fails, telephone service on the ADSL line will operate normally
- Provides excellent isolation between DSL and POTS
- The POTS splitter at remote end shall provide the RJ-11 connector for ATU-R/VTU-R modem interface
- The POTS splitter and Low-pass filter shall provide the Regional connectors for ADSL/VDSL line interfaces as well as POTS interface of splitter/Low-pass filter at remote end

Specifications

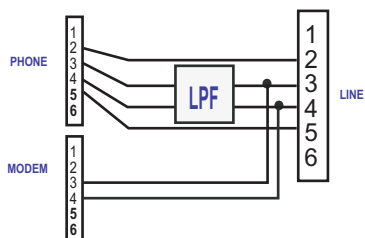
Standard	Annex E.2 of ITU-T G.992.3.	
Impedance	600 Ohms	
Connector	RJ-11	
Insertion Loss	1004Hz short loop	1dB
	1004 Hz Long loop	0.75dB
Attenuation distortion	200 to 3.4KHz short loop	-1.5 — 1.5dB
	3.4 to 300KHz short loop	-2 — 2dB
	200 to 3.4KHz long loop	-1.5 — 0.5dB
	3.4 to 300KHz long loop	-1.5 — 1dB
Cut off frequency	-3dB	12KHz
	ADSL band	30KHz -25dB
Attenuation	50KHz	-40dB
Delay Distortion	600 — 3.2KHz	200us
	200 — 4KHz	250us
Return Loss	ERL	6dB
	SRL-L	5dB
	SRL-H	3dB
Common Mode Rejection Ration	600 — 3.2KHz	-100dB
DC Resistance	20Ohms	
Isolation resistance to Longitudinal	200 — 1KHz	58dB
	1 — 3KHz	53dB
DC Current carrying capacity	100mA	
Environment	Temperature	-15 — 70°C (Operating); -10 — 80°C (Storage)
	Humidity	15 — 90% non condensing
Dimensions(WxDxH)	ALS-M10-IT	TBA
	ALS-M10-UK	TBA
	ALS-M10-FI	TBA
	ALS-M10-FA	TBA
Weight	ALS-M10-IT	TBA
	ALS-M10-UK	TBA
	ALS-M10-FI	TBA
	ALS-M10-FA	TBA
Compliance	ITU-T K.21	

Ordering Info

ALS-10-IT	Italy standard ADSL Splitter
ALS-10-UK	UK standard ADSL Splitter
ALS-10-FI	Finland standard ADSL Splitter
ALS-10-FA	France standard ADSL Splitter



ALS-M10-IT/ UK/ FI



ALS-M10-FA

ADSL Splitter Series ALS-10-EU/I



ADSL ISDN Splitter

The ALS-10-EU/I is a low-cost, compact, designed to implement the functionality of low pass filter in ISDN-BA with 2B1Q or 4B3T baseband linecodes over ADSL application. It integrates low pass filters that block the high frequency energy from reaching the ISDN-BA device and provide isolation from impedance effects of the ISDN-BA device on ADSL. Because the ISDN splitter connects directly to the subscriber loop media, it must also provide some protection for externally induced line hits or faults which could damage any attached equipment or endanger humans interacting with the installed equipment.

The circuit protection will be provided mostly by standard central office line protection means and additional protection measures built into splitter to protect against line overstress which could damage the splitter itself. The electrical and transmission specification is based on ETSI TS 101 952-1-3 V1.1.1 for ISDN-BA requirements.

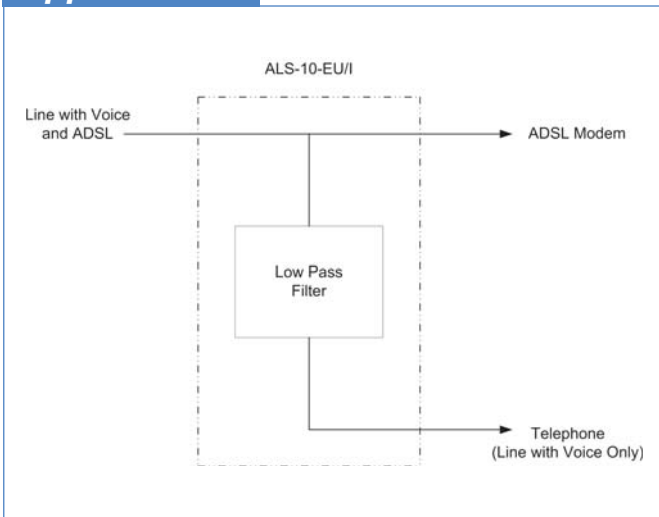
Features

- Consists exclusively of all passive components
- Designed for implementation of ADSL CPE application
- Handles all ISTN loop current from 0 to 60 mA
- If the power supply or ATU-C/ATU-R fails, telephone service on the ADSL line will operate normally
- Provides excellent isolation between DSL and ISDN

Specifications

Standard	ETSI TS 101-952-1-3 V.1.1.1	
Impedance	135/ 150 Ohms	
Isolation	Wire A to B	5 Mohms
	DC resistance	12.5 Ohms
Insertion loss	1 — 40KHz	0.8dB
	40 — 80KHz	2dB
	1 — 60KHz	1.2dB
	60 — 80KHz	2dB
Insertion loss in ADSL band	150 — 1104KHz	65dB
Insertion loss between ADSL port to LINE port	120 — 170KHz	2dB
	170 — 1104KHz	1dB
Return loss at ISDN port	1 — 40KHz	16dB
	40 — 80KHz	14dB
	1 — 60KHz	16dB
	60 — 80KHz	14dB
Unbalance about earth	300 — 30KHz	40dB
	30 — 1104KHz	46dB
	1104KHz — 3MHz	40dB
Group delay distortion	300 — 80KHz	20us
Environment	Temperature	-10 — 60°C (Operating); -10 — 80°C (Storage)
	Humidity	15 — 90% non condensing
Dimensions(WxDxH)	56mm x 86mm x 26mm	
Weight	70g	
Compliance	Annex E.2 of ITU-T G.992.1	

Application



Ordering Info

ALS-10-EU/I	European standard ADSL Splitter for ISDN
-------------	------------------------------------------