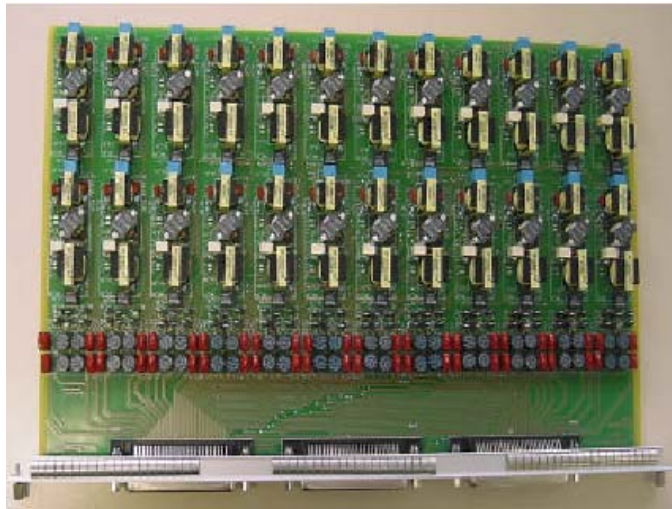


Central Office ADSL splitters

Features and benefits

- Compact 1,5" chassis for up to 2 splitter cards
- 24 passive splitters per card
- ADSL POTS and ISDN splitter cards for different countries



Splitter card



Chassis

The PCOxxxx24-01 is a 24-ports ADSL over POTS & ISDN splitter card designed to maximize the separation of voice and ADSL DataStream over copper transmission lines Asymmetric Digital Subscriber Line (ADSL) is a technology used to transmit broadband information over existing copper wires that connect home and businesses to the Public Switched Telephone Network (PSTN). ADSL is very viable technology to support high-speed access, enabling a theoretical maximum downstream rate of 9Mbps and a maximum upstream rate of 640kbps. POTS & ISDN services can coexist with ADSL without interruption or degradation of service due to the filtering action of the ADSL / POTS & ISDN splitter.

An over voltage protection-circuit, due to double operation on the line of telephone services (POTS & ISDN) an ADSL services, is embedded in the splitter design. Blocking capacitors are inserted in the Line to ADSL path. The additional matching ADSL high pass filter is usually not included in the design of the splitter and installed on the corresponding ADSL-modem board.

The splitter card integrates a low pass filter that prevents the high frequency energy from reaching the POTS or ISDN device and provides isolation from impedance effects of the POTS or ISDN device on ADSL. In addition, this filter will also attenuate any wideband impulse noise generated by the POTS or ISDN device due to the interruption of Line current (e.g. pulse dialing or on hook / off hook transition). As the POTS or ISDN splitter connects directly to the Subscriber Line media, it must also provide some protection for externally induced line hits or fault which could damage any attached equipment or endanger humans interacting with the installed equipment.

Technical specifications

Splitter cards

- 24 low pass filters for ADSL / POTS or ISDN
- Consists of only passive elements
- Circuit protection included
- ADSL blocking capacitors included
- EMI/RFI suppression (common mode choke) in option
- Maintenance signature components in option
- Compliant and listed with CE
- No external power required
- Design to meet
 - TS 101 952-1-1 (option A & B)
 - TS 101 952-1-3
 - TS 101 952-1-4
 - G992-1 (Type 1 Zreal1, Type 2 NA)
- Card dimensions: 395 x 230 x 25 mm

Chassis

- 2 slots for a 24 ports card, 1.5U, 19"/ETSI
- Height: 66,68mm (1,5U)
- Depth: 235mm (9,25")

Electrical performance

- Width w/o brackets: 444,5mm (17,5")
- Width with brackets: 19" or ETSI
- Nominal weight with 2 splitter cards: max 5 kg
- Metallic enclosure

These products are designed and manufactured by LEA.

Safety

- EN 60950
- ITU-T K21

EMC

- ETS 300 386-1
- EN55022
- EN55024

Environmental

- Operating (class 3.2) according to ETS EN 300 019 : -5°C to +45°C, 5 – 95% humidity
- Storage (class 1.2), transportation (class 2.3) according to ETS EN 300 019: -40°C to +85°C

	189773 (PCO270P24-01)	189774 (PCO600P24-01)	189775 (PCO135I21-01)
Line impedance Zr	270Ω+(750Ω//150nF) 82Ω+(600Ω//68nF)	600Ω	Combi 2B1Q linecode 135W (1) 4B3T linecode 135 W (2)
DC loop current	80mA	100mA	60mA
Insertion loss	1kHz : < 1dB	1kHz : < 1dB	1-40kHz : <0,8dB (1) 1-60kHz : <0,8dB (2) 40-80kHz : <0,8dB (1) 60-80kHz : <0,8dB (2)
Insertion distortion	200-4000Hz : ± 1dB	200-4000Hz : ± 1dB	
Band attenuation	32-1100kHz : > 55dB	32-1100kHz : > 50dB	150-1100kHz : > 65dB
Return loss	0,3-3,4kHz : >12dB 3,4-4kHz : > 8dB	300-500Hz : >14dB 500-2000Hz : >18dB 2kHz-3,4kHz : >14dB	1-40kHz : > 16dB (1) 1-60kHz : >16dB (2) 40-80kHz : >14dB (1) 60-80kHz : >14dB (2)
Delay distortion	300-500Hz : < 250µs 0,5-2kHz : < 200µs 2-3,4kHz : < 250µs	0,3-0,5kHz : <250µs 0,5-2kHz : <200µs 2-3,4kHz : <250µs	1-80kHz : < 20µs
DC resistance (tip + ring)	< 50Ω	< 50Ω	< 12,5 W
DC resist tip / ring tip+ring / ground	> 5MΩ (100Vdc) > 20MΩ (100Vdc)	> 1MΩ (100Vdc) > 10MΩ (100Vdc)	> 5MW (100Vdc) > 20MW (100Vdc)
LCL	50-600Hz : >40dB 600-3,4kHz : >46dB 3,4-4kHz : >40dB 4-30kHz : >40dB 30-1100kHz : >45dB 1,1-5MHz : >30dB	15-50Hz : >40dB 50-600Hz : >46dB 0,6-3,4kHz : >52dB	0,3-30kHz : >40dB 30-1100kHz : >46dB 1,1-5MHz : >40dB

Sales codes

- 189772: ADSL splitter subrack 1,5U, 2 slots (RK021U235-01)
- 189773: 24_port pots splitter card z_c1_impedance (PCO270P24-01), available for: Belgium, France, Hungary, Ireland, Norway, Portugal, Spain, Sweden, Switzerland...
- 189774: 24_port pots splitter card z_real1_impedance (PCO600P24-01), available for: Cyprus, Czech Republic, Finland, Greece, Iceland, Italy, Japan, Luxembourg, Netherland, Poland, USA...
- 189775: 24_port isdn splitter card isdn_impedance (PCO135I24-01)
- 190237: ADSL splitter blanking plate
- 190501: cbl telco m - free wires 24 lines 24*2*cat5 90dgr 1m (for interconnection with patch panel)
- 190502: cbl telco m - free wires 24 lines 24*2*cat5 90dgr 3m (for interconnection with patch panel)
- 190503: cbl telco m - free wires 24 lines 24*2*cat5 90dgr 5m (for interconnection with patch panel)
- 190504: cbl telco m/m 24 lines 24*2*cat5 120/90dgr 1m (for interconnection with Telindus 2400)

POTS, LINE & ADSL connectors pin assignment

1H	1L	2H	2L	3H	3L	4H	4L	5H	5L	6H	6L	7H	7L	8H	8L
26	1	27	2	28	3	29	4	30	5	31	6	32	7	33	8
9H	9L	10H	10L	11H	11L	12H	12L	13H	13L	14H	14L	15H	15L	16H	16L
34	9	35	10	36	11	37	12	38	13	39	14	40	15	41	16
17H	17L	18H	18L	19H	19L	20H	20L	21H	21L	22H	22L	23H	23L	24H	24L
42	17	43	18	44	19	45	20	46	21	47	22	48	23	49	24

RJ21 50 pins 25 & 50: GND plastic fixation for cable

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