



3M™ Integrated Splitter Block BRCP-SP

The 3M™ Integrated Splitter Block BRCP-SP is the latest generation of the Cross-Connect System BRCP developed by 3M specifically for xDSL and NGN deployment.

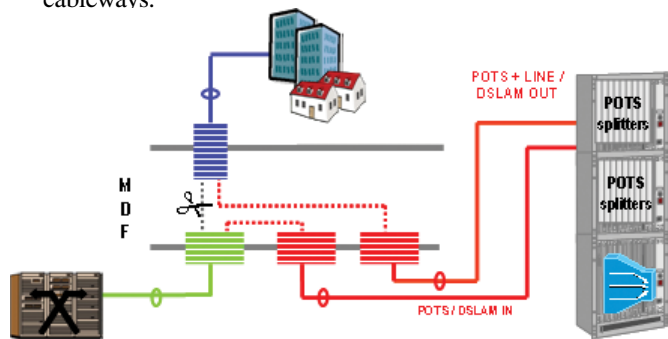
The BRCP-SP simplifies the interconnection and deployment of broadband equipment (DSLAM, MSAP/N and BBDLC) in central offices and remote locations, supporting legacy xDSL, naked DSL, line sharing or line splitting/full unbundling applications.

The innovative product design provides unique features to match operators' expectations for current mass broadband or NGN deployment with premium services and low installation costs.

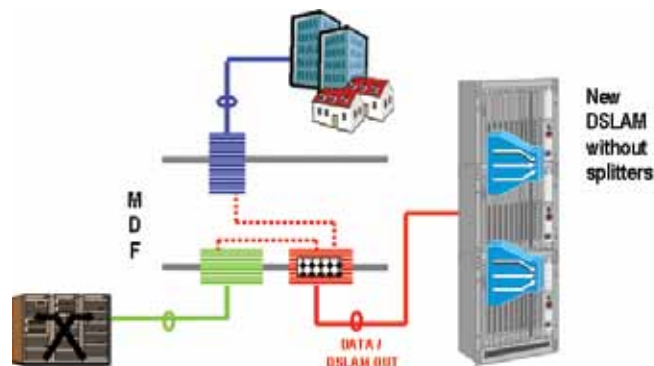
New Wiring Deployment Practice Yields True Capex Savings

The BRCP-SP locates the POTS splitters in the block rather than in the DSLAM, MSAP/N or BBDLC. This configuration provides significant materials and labor savings to service providers:

- Reduced components (racks, splitter shelves, patch cables, MDF blocks, etc.)
- Reduced installation costs (50% fewer cables between equipment and blocks)
- Increased port density at the equipment (removing splitters often frees up space for additional subscriber ports) and racks (may avoid new rack installations)
- Increased density at the MDF (may avoid MDF expansion) and in overhead cableways.



Typical DSLAM deployment configuration



DSLAM deployment with 3M™ Integrated Splitter Block BRCP-SP



3M™ Integrated Splitter Block BRCP-SP
48-port with Integrated Splitter Modules



Single-port splitter modules

3M™ Single Line Splitter and Bridging Modules

In coordination with the 3M™ Integrated Splitter Block BRCP-SP, 3M offers a full range of solutions for xDSL filtering that are designed to comply with major international standards or service provider specifications.

Flexible Operation to Improve OPEX and Service

Using field-manageable single line splitter modules, the BRCP-SP splitter block provides individual customer-centric service line management at the central office MDF or the remote cross-connect field, supporting multiple services (POTS, ADSL, ADSL2+, VDSL, naked DSL, g.SHDSL, VoIP, CLEC transmission, etc.)

Single-port splitters allow for individual splitter replacement, in the case of a splitter fault, without disrupting POTS service and without removing multiple splitters, as in the case of a DSLAM full splitter board replacement.

Bridging modules support all applications that do not require a POTS input, such as naked DSL, full unbundling, g.SHDSL or VoIP.

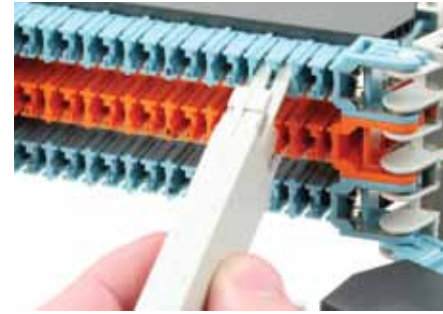
Increasing Quality of Service Requirements

Individual POTS splitters are located at the rear side of the BRCP-SP splitter block, providing physical protection of the splitters, preventing accidental disconnection of subscribers.

With the rapid emergence of higher added-value services over DSL, such as Triple Play services, required QoS needs to be supported by every component of a broadband line.

Superior Transmission Characteristics

3M BRCP-SP splitter modules are designed to maximize the separation of voice and xDSL streams over copper transmission lines. They integrate high-quality, low-pass filters which help prevent high-frequency energy from reaching the POTS device. The filters include DC blocking capacitors to attenuate wideband impulse noise generated by the POTS device due to interruption of the line current.



Single-port splitter module

Integrated Surge Protection

3M offers a full range of solutions for xDSL protection that are designed to comply with major international standards or service providers specifications.

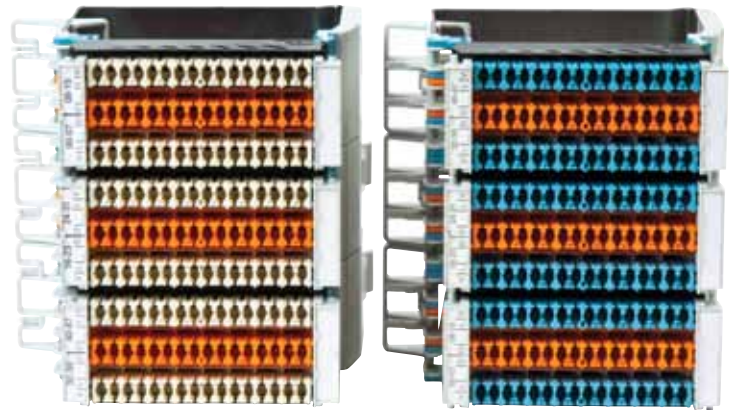
With individual single line protectors, the BRCP-SP splitter block provides modular protection while preserving the density provided by the block, making it adaptable to confined spaces of remote terminals, shelters or telecom closets in residential or corporate buildings.

230V and 260V over-voltage protectors provide protection for lines carrying POTS, xDSL and g.SHDSL services while the 420V over-voltage protectors provide protection of lines of E1/T1 and ISDN PRI services.

Depending on the network application, whether central office or remote locations, different protection arrangements are possible.

With the 3M™ Integrated Splitter Block BRCP-SP1, both the LINE (to MDF OSP line side) and POTS (from MDF OE/horizontal side) ports are designed to be simultaneously protected (with two GDTs — Gas Discharge Tubes) against possible over-voltage spikes.

The new 3M™ Integrated Splitter Block BRCP-SP2 features an individual overvoltage protector module with a single GDT to protect the LINE ports only.



3M™ Integrated Splitter Block BRCP-SP2 (left) and 3M™ Integrated Splitter Block BRCP-SP1



3M™ Integrated Splitter Block BRCP-SP1 with Integrated Protection (double GDT)



3M™ Integrated Splitter Block BRCP-SP2 with Integrated Protection (single GDT)

3M™ Integrated Splitter Block BRCP-SP

Features	Benefits
Quiet front-facing direct IDC or wire wrap terminals	Direct IDC is designed to reduce installation time and costs versus connectorized or pre-terminated blocks Adapted to service providers using wire wrap connection technique
Different terminal block port counts (48 to 72 ports)	Allows for a match with most equipment LT card configurations Designed to reduce installation costs in avoiding cable splits
Able to combine POTS and xDSL ports at a single high-density location	Convenient jumpering operations Can save up to over 50% MDF space in comparison with conventional xDSL deployment practice and other MDF terminal blocks Very well adapted to confined spaces of remote e-cabinets, CEVs, huts and shelters or telecom closets in buildings
Able to have OVP installed	Adapted to use in OSP / remote applications
Wire guide channels	Helps retain wire twist up to the base of the IDC terminal (required for higher frequency applications)
Vertical or horizontal mounting at the MDF	Adaptable to different frame environments

Single Line Splitter and Bridging Modules

Features	Benefits
Individual splitter and bridging modules	Bridging modules adapted to splitterless applications (g.SHDSL, naked DSL, full unbundling, VoIP, etc)
Modules are located at the rear of the BRCP-SP block	Designed to provide physical protection of modules and help prevent accidental disconnection of the subscribers. Supports QoS requirements Designed to not impede termination of jumpers
Lifeline service	Voice circuit is maintained and data service is disconnected upon removal of the modules without any port reconfiguration or rewiring operation
Splitter and bridging modules are keyed	Allows for mounting into the appropriate pair positions and perfect connection

Integrated Protector Modules

Features	Benefits
Modular and single line protection	Provides flexibility of operations (protection of different types of services) and possible cost savings for those lines that do not require protection
High density	Designed to be used at the Central Office and in remote terminals while preserving the density of the BRCP-SP splitter block
Protector module is mounted at the front while the splitter is located at the rear of the BRCP-SP splitter block	Equipment and cable plant protection is operational even during splitter operations
Color coding	Designed to help differentiate between regular (POTS, ADSL) and high-capacity circuits (E1/T1, ISDN PRI)

3M™ Integrated Splitter Block BRCP-SP

Mechanical Specifications

Dimensions: (Height/Width/Depth)	Height	Width	Depth
48-port splitter block	135 mm / 5.31"	133 mm / 5.24"	143 mm / 5.63"
64-port splitter block	180 mm / 7.08"	133 mm / 5.24"	143 mm / 5.63"
72-port splitter block	225 mm / 8.85"	133 mm / 5.24"	143 mm / 5.63"
Wire range IDC contacts – solid copper conductor	0.4 mm to 0.8 mm 26 AWG to 20 AWG T-connection / double jumpering possible with different wire gauges		
Wire re-terminations:	250 re-terminations of 24 AWG per Telcordia TR-NWT-001195		

Materials

Plastics	Thermoplastic
Contacts	Bronze, tin (Sn) plating

Electrical Specifications

Insulation resistance	$>1 \times 10^{10} \Omega$
Contact resistance	$< 10 \text{ m} \Omega$
Dielectric strength	3000 V rms, 60 Hz AC
High voltage surge	3000 V DC surge

Transmission Specifications

Insertion loss	$< 0.01 \text{ dB to } 2.2 \text{ MHz}$ $< 0.02 \text{ dB to } 12 \text{ MHz}$ $< 0.04 \text{ dB to } 30 \text{ MHz}$
Return loss	$> 57 \text{ dB to } 2.2 \text{ MHz}$ $> 52 \text{ dB to } 12 \text{ MHz}$ $> 43 \text{ dB to } 30 \text{ MHz}$
Crosstalk	$> 66 \text{ dB to } 2.2 \text{ MHz}$ $> 51 \text{ dB to } 12 \text{ MHz}$ $> 44 \text{ dB to } 30 \text{ MHz}$

Environmental Specifications

Telcordia TR-NWT-001195 – 3rd party tested	“Generic requirements for Insulation Displacement Connector (IDC) cross-connect terminal blocks”
Operating temperature range	-10°C to 60°C
Storage temperature range	-40°C to 90°C
Flammability rating	UL 94 V-0 materials used
RoHS: Compliant with EU RoHS Directive (2002/95/EC)*	

“RoHS Compliant 2002/95/EC” means that the product or part (“Product”) does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under RoHS. This information represents 3M’s knowledge and belief, which may be based in whole or in part on information provided by third party suppliers to 3M.

3M™ Integrated Splitter Block BRCP-SP Ordering Information

Model Number	Product Description	Stock Number	Minimum Order
C242707A	BRCP-SP Splitter Block 48 ports IDC	FQ100027397	1
C242708A	BRCP-SP Splitter Block 64 ports IDC	FQ100027405	1
C242755A	BRCP-SP Splitter Block 72/80 ports IDC	FQ100028080	1
C242770A	BRCP-SP1 Splitter Block 48 ports IDC for protection (Double GDT)	FQ100028387	1
C242771A	BRCP-SP1 Splitter Block 64 ports IDC for protection (Double GDT)	FQ100028635	1
242768CA	BRCP-SP1 Splitter Block 72 ports IDC for protection (Double GDT)	FQ100029849	1
242874CA	BRCP-SP1 Splitter Block 80 ports IDC for protection (Double GDT)	FQ100030185	1
242870CA	BRCP-SP2 Splitter Block 48 ports IDC for protection (Single GDT)	FQ100030151	1
242871CA	BRCP-SP2 Splitter Block 64 ports IDC for protection Single GDT)	FQ100030169	1
242868CA	BRCP-SP Splitter Block 48 ports WW	FQ100030003	1
242869CA	BRCP-SP Splitter Block 64 ports WW	FQ100030011	1
C242739A	BRCP-SP text probe for BRCP-SP IDC	FQ100027728	10
C222014B	STG / BRCP-SP WW 4-wire Serial Test Cord	FQ100026845	5
C234030A	SOR OC termination tool - 3M IDC	FQ100024824	10
C233998A	BRCP-SP1 Double GDT protector 230V with fail-safe - grey	IA340501534	100
C233994A	BRCP-SP1 Double GDT protector 260V with fail-safe - brown	IA340529139	100
C233996A	BRCP-SP1 Double GDT protector 420V with fail-safe - red	IA340529121	100
233350CA	BRCP-SP2 Single GDT protector 260V with fail-safe - brown	IA340532471	100
233360CA	BRCP-SP2 Single GDT protector 230V with fail-safe - grey	IA340533842	100
242840CF	BRCP-SP 1F ADSL2+ splitter module with DC blocking caps no PM - ETSI B	80611330228	960
242844CM	BRCP-SP 7M ADSL2+ splitter module with DC blocking caps no PM - ANSI	80611326523	96
C242827M	BRCP-SP 8M ADSL2+ splitter module with DC blocking caps no PM - 6000HMS	80611331341	960
242346CM	BRCP-SP 13M ADSL2+ splitter module with DC blocking caps with PM - 6000HMS	80611331358	960
C242832M	BRCP-SP 9M ADSL2+ splitter module with DC blocking caps no PM - 6000HMS	80611330236	960
242343CM	BRCP-SP 12M ADSL2+ splitter module with DC blocking caps with PM - 6000HMS	80611331598	960
242349CF	BRCP-SP 14F ADSL2+ splitter module with DC blocking caps no PM - ETSI A	80611334154	96
242353CF	BRCP-SP 15F ADSL2+ splitter module no DC blocking caps no PM - ETSI A	80611334170	96
C242738A	BRCP-SP BRIDGING MODULE - BLACK	80611337926	100

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