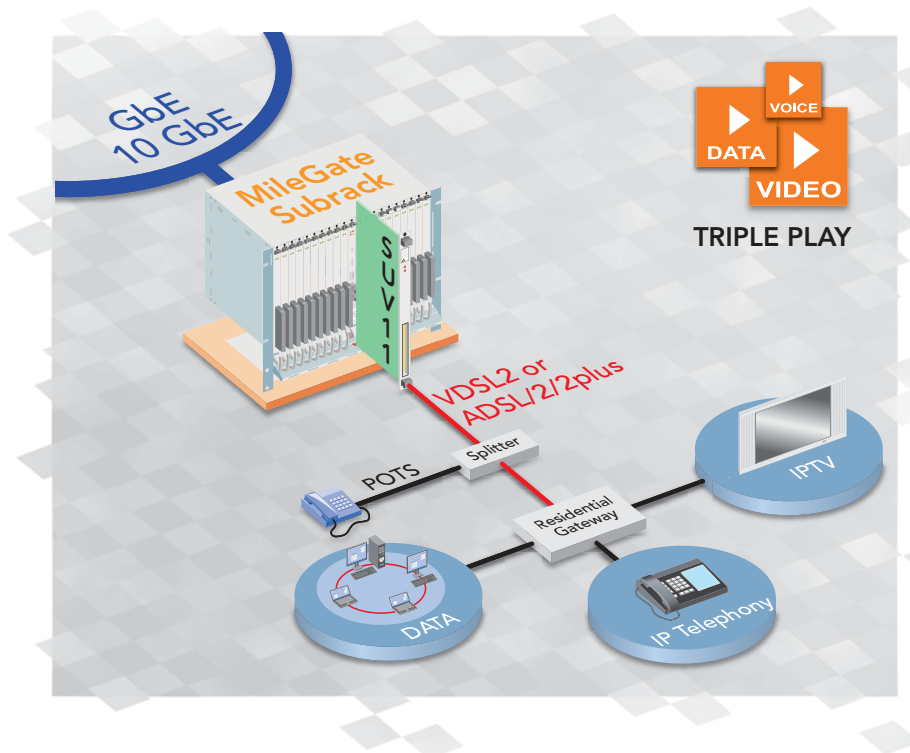


MileGate SUV11

VDSL2 line card for symmetrical or asymmetrical broadband Internet access of residential and business customers



- Highest port-density and low power consumption
- VDSL2 over POTS with automatic or manual ADSL2/2plus fallback
- VDSL2 bandplans 997, 998 and extensions
- 8 MHz, 12 MHz, 17 MHz, and 30 MHz profiles are supported
- For MileGate 2500 Release 1B, 2510, 2300, 2310, and 2200
- Vectoring with VECT1
- Designed for indoor and outdoor deployment
- All functions out of one network management system

The MileGate VDSL2 line card SUV11 from KEYMILE brings high-speed Triple Play and business services to the end customer. The line card offers highest data throughput thanks to its 10GbE connection to MileGate's Ethernet backplane.

The line card can be configured in two operational modes. In the FTTC mode it provides 48 ports with 8/12/17 MHz profiles. For maximum bandwidth on short lines a FTTB mode can be activated. This mode provides 24 ports and in addition the 30 MHz profile can be selected.

■ VDSL2 in MileGate

Using SUV11 in MileGate, modern services as VoIP, broadband Internet, Video-on-Demand and TV can be provided via DSL. With SUV11 ADSL2plus and VDSL2 services can be offered with only one line card. It realises flexibly all FTTx topologies:

- CO (Central Office) with ADSL2plus and VDSL2 with 8 MHz and 12 MHz profiles
- FTTC (Fibre-to-the-Curb) with VDSL2 with 17 MHz profile

- FTTB (Fibre-to-the-Building) with VDSL2 with the 30 MHz profile

During start-up, configurable sets are setting up automatically the DSL interface, providing optimum parameters for each line.

■ Vectoring

In case of an increase in subscriber numbers in one cable, crosstalk between the VDSL2 signals is the limiting factor in terms of range and data rate. Vectoring allows crosstalk (FEXT, Far End Crosstalk) to be cut out almost completely.

It is important that all VDSL2 signals within a cable are subjected to the vectoring process. This is facilitated by the system-level vectoring approach – cross-card vectoring. The SUV11 line card uses this function together with vectoring unit VECT1.

■ Two-stage Multicasting

The two-stage multicasting feature of the SUV11 and the core unit COGEx provide efficient data transmission.

This is essential for bandwidth consuming applications as the transmission of high-definition IPTV channels in particular.

The data signal is multiplied for the corresponding members of multicast groups in the SUV11 and it is only transmitted to these, thus avoiding unnecessary data traffic to all users.

■ High-speed Broadband

The SUV11 provides bandwidths of up to 100Mbps for each subscriber and is compatible with standard CPEs.

Technical Data

Operational Modes	
FTTE/FTTC (8/12/17 MHz profiles)	48 ports VDSL2 over POTS with ADSL/ADSL2/ADSL2plus Annex A fallback
FTTB (8/12/17/30 MHz profiles)	24 ports VDSL2 over POTS with ADSL/ADSL2/ADSL2plus Annex A fallback
Interfaces	
VDSL2 mode	ITU-T G.993.2, Annex B, Europe Bandplans 997, 998 and extensions Automatic selection of predefined sets of bandplan, profile, PSD mask Bit swapping, virtual noise, seamless rate adaption Pair bonding with 2 lines*
VDSL2 vectoring	System level vectoring according to ITU-T 993.5 Up to 192* VDSL2 lines (together with MileGate VECT1)
ADSL mode	Configurable automatic fallback mode, ATM VCC is terminated ITU-T G.992.1 Annex A ITU-T G.992.3 (ADSL2) Annex A, M ITU-T G.992.5 (ADSL2plus) Annex A, M
PSD shaping	DPBO/UPBO (downstream/upstream power back-off), custom PSD
Handshake	According to G.994.1
Line tests	DELT (Double Ended Line Test), SELT (Single Ended Line Test)
Ethernet backplane access	1 Gbps and 10 Gbps
Ethernet Functionality	
Supported protocols	PPPoE with Intermediate Agent acc. to Broadband Forum TR-101 and IETF RFC 2516 IPoE with DHCP Option 82 according to IETF RFC 2131, RFC 3046
Multicasting	IGMPv2/v3, supporting IGMPv3 snooping with proxy reporting and message suppression
VLAN	VLAN according to 802.1Q, Double Tag VLANs (Q-in-Q) according to 802.1ad
OAM	802.1ag Ethernet OAM
General	Broadband Forum TR-101 1:1 mode, n:1 mode for residential customers TLS* (Transparent LAN Service) or PLS* (Private Line Service) for business customers
Management	
MCST	For local management
UNEM	For central management
Power Supply	
Input voltage nominal (min/max)	-48/-60VDC (-39.5VDC ... -72VDC)
Operation Environment	
Temperature range and humidity	According to MileGate environmental specifications
*Supported with future firmware update	



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