PRELIMINARY

Iskratel Lumia T6

World's fastest 25GPON / 50GPON / 100GPON / Combo PON / XGS-PON / GPON OLT

ISKRATEL

Iskratel Lumia T6 is a shelf-based, multi-blade PON OLT with **terabit-capable** backplane. It provides flexible port configuration with XGS-PON, GPON, Combo PON, or 25G/50G/100GPON subscriber blades.

Iskratel Lumia T6 provides data rates up to **800 Gbps per subscriber blade** and up to **1.4 Tbps uplink capacity**, which make it the **world's fastest PON OLT**. The resulting longest lifespan across PON technologies guarantee the return and safety of investment.

Furthermore, the dual nature of Iskratel Lumia T6 supports **conventional and virtualised operation** on the same hardware, allowing operators to avoid an entire investment cycle when transforming their networks towards software-defined, multi-gigabit access.

Highly scalable, Iskratel Lumia T6 fits all deployment densities, from high-density urban to low-density rural areas, while its flexibility and variety of subscriber ports address all use cases in the broadband access.

Iskratel Lumia T6 provides the ideal port density: equipped with Iskratel Lumia C16T Combo PON subscriber blades, up to 80 ports can serve more than 20,000 users from a single shelf.

Iskratel Lumia T6 is available as a 6-slot shelf hosting one or two central Ethernet switches for network (uplink) connectivity, and four or five subscriber blades. Each subscriber blade is connected to each central switch with 400 Gbps, which yields a total of 800 Gbps per subscriber blade.

When duplicated, the Iskratel Lumia P300T central switches operate in dual-unit stacking mode as a single, non-blocking switch with extremely high switching capacity of 3.4 Tbps, guaranteeing high availability and resiliency with hot-swap.

The uplink capacity can be boosted with Iskratel Lumia U800T uplink extension card, yielding a total uplink capacity of 1.4 Tbps per shelf.

KEY FEATURES AND BENEFITS

- Up to 800 Gbps per subscriber blade in dual-star backplane topology
- Up to 1.4 Tbps uplink connectivity and dual-unit stacking mode
- Seamless transition to virtualised next-gen fibre access
- Industry-leading temperature range from –40 °C to +65 °C
- Flexible shelf configurations for different capacities
- Made in EU

Next-generation broadband access

Conventional or virtualised operation

The longest lifecycle and lowest five-year TCO

TECHNICAL CHARACTERISTICS

Shelf type	T6	
Shelf description	6 slots, 5U [1]	
Dimensions H × W × D	222.3 mm × 482.6 mm × 330 mm [2]	
Rack compliance	ETSI 300	
Port capacities	**With duplicated central blades**	**With a single central blade**
		
No. of slots for central blades	2	1
No. of slots for subscriber blades	4	5
Max. GPON ports	64	80
Max. XGS-PON ports	64	80
Max. Combo PON ports	64	80
Max. GPON users (at 1:128 split)	8,192	10,240
Max. XGS-PON users (at 1:256 split)	16,384	20,480
Max. 100GE uplink ports	4 + 8 optional [3]	2 + 4 optional [3]
Max. 10GE/25GE uplink ports	8	4
Max. GE uplink ports	4	2
PON interfaces		
XGS-PON split ratio	1:256 [4]	
GPON split ratio	1:128 [4]	
Combo PON split ratio	1:128 [4]	
Shelf connectivity and management		
Central switching blades	One or two central Ethernet switching blades	
Backplane interfaces	16× 10G/25GBase-KR or 4× 100GBase-KR4 interfaces per subscriber blade	
IPMI	Service blade identification, Identification of shelf, Blade status information, Blade management, Fan management	
Environmental		
Safety	EN 62368-1:2014 + A11:2017	
EMC	EN 55032:2015 + A11:2020, EN 55035:2017 + A11:2020, EN 61000-3-2:2019 and EN 61000-3-3:2013 + A1:2019	
Storage conditions	ETS 300 019-1-1, class 1.2, temperature –50..+70 °C, relative humidity 10..100%	
Transport conditions	ETS 300 019-1-2, class 2.3	
Operating conditions	ETS 300 019-1-3, class 3.1E, temperature –40..+65 °C, relative humidity 5..90% non-condensing. Please refer to user manual for details.	
Power supply		
Supply voltage	• From –42 V DC to –60 V DC, dual-rail redundancy	

(1) Including 1U space reserved for cooling.
(2) Depth given without cables and protrusions.
(3) Four or eight additional 100GE ports are available with an uplink extension card Iskratel Lumia U800T.
(4) 1:256 split ratio is supported on XGS-PON-only ports, and 1:128 for GPON/Combo ports. Split ratio may depend on optical power budget and ODN topology.

Ordering code	Description
SBB2500AB	Iskratel Lumia T6 shelf, without filter
SBB2500KA	Iskratel Lumia C16T Combo PON (XGS-PON/GPON) blade for Iskratel Lumia terabit shelves
SBB2500BA	Iskratel Lumia P300T central blade for terabit shelves

For Iskratel Lumia C16T and Iskratel Lumia P300T, please refer to separate/individual datasheets.

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