ISKRATEL
Lumia T14

>45%
>60%
>75%
>90% **92%**
100%
>100%

1,851 W
CoC v8.0, Tier 2023

Iskratel Lumia T14

High-performance and high-density
XGS-PON / GPON / Combo PON OLT

ISKRATEL

Iskratel Lumia T14 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/50GPON subscriber blades, while its scalable density makes it ideal for deployment in central offices, street cabinets or buildings.

The dual nature of Iskratel Lumia T14 supports **conventional and virtualised operation** on the same hardware, allowing operators to avoid an entire investment cycle when transforming their network towards software-defined, multi-gigabit access.

Highly scalable, Iskratel Lumia T14 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 T14 provides the top-of-the-line port density: equipped with **Iskratel Lumia C16T** Combo PON subscriber blades, up to 208 ports can serve **more than 50,000 users** from a single shelf.

Iskratel Lumia T14 is available as a **14-slot shelf** hosting one or two central Ethernet switches for network (uplink) connectivity, and 12 or 13 subscriber blades. Each subscriber blade is connected to each central switch with a 200 Gbps connection, yielding a total of **400 Gbps per subscriber blade**.

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

With the industry-leading temperature range **from –40 °C to +65 °C**, Iskratel Lumia T14 can be deployed not only at central office, but also at less controlled remote locations such as street cabinets.

KEY FEATURES AND BENEFITS

- Up to 400 Gbps per subscriber blade in dual-star backplane topology
- Up to 600 Gbps 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

Prolonged lifecycle and
lowest five-year TCO

TECHNICAL CHARACTERISTICS

Shelf type	T14	
Shelf description Dimensions H × W × D Rack compliance	14 slots, 14U [1] 572 mm × 482.6 mm × 330 mm [2] ETSI 300	
Port capacities	**With duplicated central blades**	**With a single central blade**
No. of slots for central blades	2 [3]	1 [4]
No. of slots for subscriber blades	12 [3]	13 [4]
Max. GPON ports	192	208
Max. XGS-PON ports	192	208
Max. Combo PON ports	192	208
Max. GPON users (at 1:128 split)	24,576	26,624
Max. XGS-PON users (at 1:256 split)	49,152	53,248
Max. 100GE uplink ports	4	2
Max. 10GE/25GE uplink ports	8	4
Max. GE uplink ports	4	2
PON interfaces		
XGS-PON split ratio GPON split ratio Combo PON split ratio	1:256 [5] 1:128 [5] 1:128 [5]	
Shelf connectivity and management		
Central switching blades Backplane interfaces IPMI	One or two central Ethernet switching blades 16× 10G/25GBase-KR or 4× 100GBase-KR4 interfaces per subscriber blade Service blade identification, Identification of shelf, Blade status information, Blade management, Fan management	
Environmental		
Safety EMC Storage conditions Transport conditions Operating conditions	EN 62368-1:2014 + A11:2017 EN 55032:2015 + A11:2020, EN 55035:2017 + A11:2020, EN 61000-3-2:2019 and EN 61000-3-3:2013 + A1:2019 ETS 300 019-1-1, class 1.2, temperature –50..+70 °C, relative humidity 10..100% ETS 300 019-1-2, class 2.3 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 Power consumption	From –42 V DC to –60 V DC, dual-rail redundancy • Duplicated configuration with shelf, 12 blades C16T and two blades P300T: 1,851 W typ. (with SFPs), CoC compliant, Tier 2023, 92% consumption • Single-switch configuration with shelf, 12 blades C16T and one blade P300T: 1,755 W typ. (with SFPs), CoC compliant, Tier 2023, 91% consumption • Single-switch configuration with shelf, 13 blades C16T and one blade P300T: 1,888 W typ. (with SFPs), CoC compliant, Tier 2023, 94% consumption	

[1] Including 1U space reserved for cooling.
[2] Depth given without cables and protrusions.
[3] In duplicated configuration, central switches occupy shelf positions 7 and 8, while peripheral blades (may) occupy shelf positions 1-6 and 9-14.
[4] In single-switch configuration, the central switch occupies shelf position 7, while peripheral blades (may) occupy shelf positions 1-6 and 8-14.
[5] 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
SBB2500AA	Iskratel Lumia T14 shelf, including 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.

ISO 9001   Q-009
ISO 14001   E-498
ISO/IEC 27001   I-046

SILVER 2022 ecovadis Sustainability Rating