



ISKRATEL

Iskratel Lumia T14

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

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 fibre access.

Iskratel Lumia T14 provides 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 200 Gbps connection, yielding a total **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 **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 the 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	14 slots, 14U ⁽¹⁾	
Dimensions H × W × D	572 mm × 482.6 mm × 330 mm ⁽²⁾	
Rack compliance	ETSI 300	
Port capacities	With duplicated central blades	With a single central blade
		
No. of subscriber blades C16T	12	13
No. of central blades P300T	2	1
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	1:256 ⁽³⁾	
GPON split ratio	1:128 ⁽³⁾	
Combo PON split ratio	1:128 ⁽³⁾	
Shelf connectivity and management		
Central switching blades	One or two central Ethernet switching blades, 6× 25GE inter-switch connectivity	
Backplane interfaces	16× 10GE/25GE or 4× 100GE 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; UL 62368-1; CSA C22.2 No. 62368-1:2014, 2nd edition	
EMC	EN 55032:2015 + A11:2020, EN 55035:2017 + A11:2020, EN 61000-3-2:2019 and EN 61000-3-3:2013 + A1:2019; FCC: 47 CFR Part 15, Subpart B (Clauses 15.107, 15.109) in conjunction with ANSI C63.4:2014; ICES-003, Issue 7 in conjunction with ANSI C63.4:2014	
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	
Power consumption	<ul style="list-style-type: none"> Duplicated configuration with a shelf, 12 blades C16T and two blades P300T: 1,851 W typ. (with SFPs), CoC compliant, Tier 2023, 92% consumption Single-switch configuration with a 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⁾ 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 T14 terabit shelf, including filter
SBB2500KA/KB	Iskratel Lumia C16T Combo PON (XGS-PON/GPON) blade for Iskratel Lumia terabit shelves
SBB2500BA	Iskratel Lumia P300T central blade for Iskratel Lumia terabit shelves

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

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