ufiSpace

Telecom Networking Solutions

M3000-14XC

Fronthaul Multiplexer

The UfiSpace M3000-14XC is a high-performance, versatile open networking fronthaul device that is designed to expand coverage and maximizes the DU resources with flexibility as service providers improve their services. It enables telecoms and service providers to optimize private 5G network by utilizing DU resources efficiently and to streamline upgrading process when service providers are increasing its service capacity.

The M3000-14XC is future-proofed with a powerful quad-core processor, a programmable FPGA, 14 high speed interfaces, and full timing features supporting IEEE 1588V2 and SyncE. It is suitable for both indoor and outdoor cabinet deployments with redundant, hot-swappable components for convenience, increased availability, reliability and lower costs of maintenance.

KEY BENEFITS

- Extend service coverage and minimize DU resources needed by grouping RUs into one virtual cell.
- Future-proofed for 5G with ultra-low forwarding latency, high precision frequency and phase timing synchronizations.
- Suitable for open fronthaul application and compliant to O-RAN standard.

KEY FEATURES

- Jumbo frame size up to 9000 bytes
- Supports O-RAN Cascade-FHM mode
- Various fiber length delay compensation
- Configurable data compression mode
- Configurable IQ data width
- Configurable U/C plane VLAN ID
- CLI/SNMP/NETCONF management protocol
- Supports full SyncE and IEEE 1558V2 (T-GM**, T-BC**, and T-TC)
- Integrated Stratum 3E OCXO with Class C timing support
- Rich timing interfaces: ToD, 1PPS, BITS , 10MHz, and GNSS**

SPECIFICATIONS

PHYSICAL

- 8 x 10G SFP+ ports to O-RU (support for up to 4T/4R antenna setups)
- 4 x 10G SFP+ ports to O-DU*
- 2 x 100G QSFP28 (Reserved)
- 1 x USB port(for debug)
- 1 x RJ45 serial console port
- 2 x 100/1000M RJ45 managment port

Processor	ARM Cortex-A53 4-Core 64-bit @ 1.0GHz
FPGA	Intel S10-TX(for O-RAN shared cell function)
Memory	4GB DDR4
Timing Interfaces	1 x GNSS input SMA(**) 1 x 1PPS input/output SMB 1 x 10MHz input/output SMB 1 x BITS input/output RJ48 1 x ToD input/output RJ45
Timing Capabilities	Stratum 3E OCXO ITU-T Synchronous Ethernet (SyncE) IEEE 1588v2 T-TC (G.8275.1, T-BC, T-GM, and G.8264 ESMC will be available with future premium versions)
Chassis (WxDxH)	1 RU, 440 x 250 x 43.5 mm or 17.32" x 9.84" x 1.71" Net weight: 4.18 kg. or 9.21 lbs.
Redundancy	Hot swappable, 1+1 redundant PSUs
FAN	4 Fixed Fans

*Only port 8 is available to use for now, port 9-11 are reserved
**To be available with future premium versions and can be activated with a software license key

ENVIRONMENTAL

Power Supply	AC input: 100 ~ 240V, 3A DC input: -36 ~ -75V, 8A Max power: 103.9 Watts
Max. Operating Specs.	Operating temperature: –40°C to 70°C (-40°F to 158°F) Operating humidity: 5% to 95% (RH), noncondensing
Max. Non-Operating Specs.	Storage temperature: –40°C to 70°C (-40°F to 158°F) Storage humidity: 5% to 93% (RH), non-condensing

PERFORMANCE

Coverage	One FHM supports up to 8 RUs. Cascading can be used to extend coverage.

REGULATORY COMPLIANCE

Safety	UL 62368-1 IEC62368-1 BSMI
EMC	FCC Part 15, Subpart B, Class A ICES-003, Class A EN 55032, Class A EN 300 386 EN 55035 EN 301 489 EN 303 413 BSMI VCCI CISPR 32, Class A KS C 9832, Class A; KS C 9835

Specifications are subject to change without notice.

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M3000-14XC Front and Back Views

SUPPORTED ACCESSORIES

Transceivers
10G SFP+ SR, 10G SFP+ LR , 10G SFP+ ER

Cable Types
SMA coaxial cable with 1/4-36UNS-2B connector for GNSS
SMB coaxial cable with 10-32UNF-2A connector for 1PPS and 10MHz
Shield cable with RJ45 for ToD
Shield cable with RJ48 for BITS

Power Supply Types

PSU-201-DISB, 200W DC PSU, intake air flow
PSU-201-AISB, 200W AC PSU, intake air flow

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