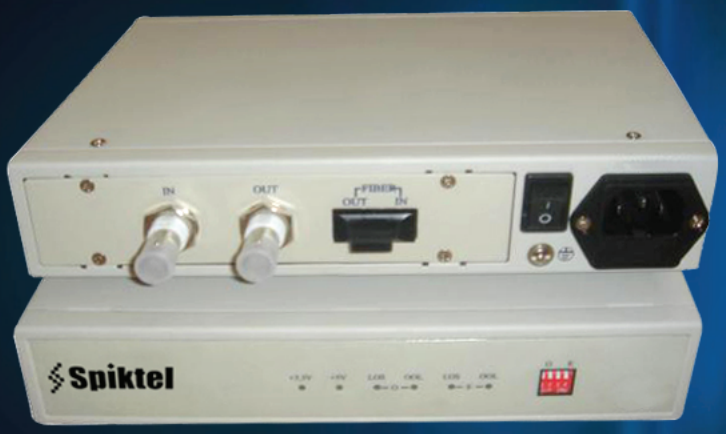
Spiktel

PRODUCT CATALOG

FIBER MULTIPLEXER



STM1 / OC3 Electrical to Optical converter

Interface Conversion

ST-2301-FA

Overview

2301-FA is an interface converter for STM-1 electrical and optical interface conversion. It is designed for the SDH equipment coaxial interface and optical interface interconnect, as well as the ATM 155.520 Mbps interface and SDH device interconnection.

Complete loop-back facility is supported for system diagnostic and commissioning. Compact casing and simple operation achieve the cost saving and investment protected.

Spiktel's STM-1 Optical to STM-1 Electrical converter provides a simple and cost-effective conversion between STM-1 optical interface and STM-1 electrical interface. STM-1 Optical to STM-1 Electrical converter is an interface conversion equipment supplied with one STM-1 electrical (75 Ohms BNC) interface and one STM-1 optical (MSA compliant SFP) interface.

Features

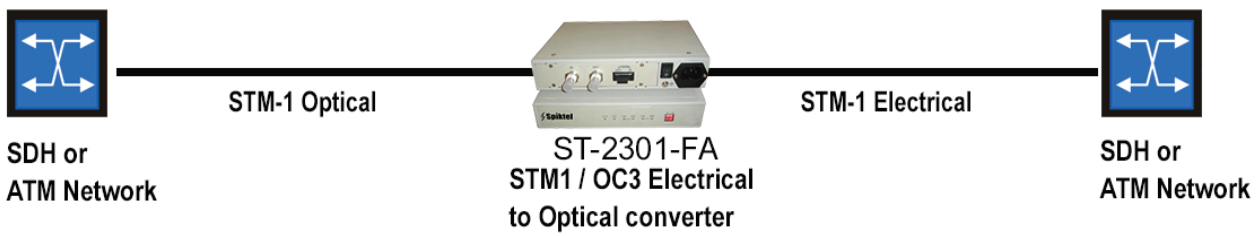
* High reliability, comply with ITU-T G.703 and G.957
* Single Fiber Bi-Directional is selectable
* State-of-the-art design, ensure normal working under different environment.
* Supports local and remote loop-back on electrical or optical interface for system diagnostic.
* Suitable for SDH and ATM 155.52 Mbps interface interconnection.
* Simple operation and maintenance
* Compact design and low power consumption.
* 1+0, STM-1 Optical to STM-1 Electrical converter version.
* Standard MSA compliant SFP optical interface. Allows installation of field removable / field !upgradable optical SFPs
* State-of-the-art design. Industrial Grade Temperature specifications - ensures normal working !under difficult environments.
* Supports local and remote loop-back on electrical or optical interfaces for system diagnostics.
* 75 Ohms (BNC connector) compliant with ITU-T G.703 and Telcordia GR-253 155Mbps electrical !interfaces

STM1 / OC3
Electrical to Optical converter

Compliance

G.703	Provides one standard STM-1 electrical interface complying with G.703
G.707	Network node interface for the synchronous digital hierarchy (SDH)
G.781	Structure of Recommendations on equipment for the Synchronous Digital Hierarchy (SDH)
G.782	Types and characteristics of Synchronous Digital Hierarchy (SDH) equipment
G.782	Characteristics of Synchronous Digital Hierarchy (SDH) equipment functional blocks
G.813	Timing characteristics of SDH equipment slave clocks (SEC)
G.825	Control of Jitter and Wander within Digital Networks Which are Based on the Synchronous Digital Hierarchy (SDH)
G.957	Provides one standard STM-1 optical interface complying with G.957
G.958	Digital line systems based on the Synchronous digital hierarchy for use on optical fiber cables

Applications:



Security and Protection

* Secured Access via SSH V2
* Password Protection: Password Protection in compliance with the mandatory clauses of the
* GR-815-CORE-2 specifications for secured access control.
* Security Audit: All access logs for up to 30 days are maintained for security audit purposes
* Logging: Maintains a log of all successful and un-successful attempts. Logged information includes the ID and the IP address of the accessing entities. Alerts the administrator if the un-successful logging attempts exceed 5.

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Technical Specifications

STM-1 Electrical Interface

Data Rate	155.52 Mbps
Standard	ITU-T G.703 Compliant
Impendence	75 Ohms resistive
Peak to peak voltage (signal)	1 ± 0.1 V
Rise time between 10% and 90% amplitudes of the measured steady state amplitude	≤ 2 ns
Maximum Attenuation	12.7dB at 78MHz
Jitter	As per ITU-T G.825
Line Code	CMI
Physical Connector	BNC Coaxial

STM-1 Optical Interface

Data Rate	155.52 Mbps
Standard	ITU-T G.703 Compliant
Coding	NRZ
Connector	LC
Light source	Laser Diode
Wave length options	850nm / 1310nm / 1550nm
Transmission type	Dual Fiber (standard) Single Fiber Bi-directional (optional)
Automatic Laser Shut Down Option	Provided - User selectable option
Transmit power	As per SFP used
Receive sensitivity	As per SFP used

Alarms	* LOS (Loss of Signal). * AIS (All Ones Alarm). * Optical Power Input High Alarm. * Optical Power Input Low Alarm. * SNMP V2 Traps.

STM1 / OC3
Electrical to Optical converter

Technical Specifications

Loop-backs	* STM-1 Electrical local loop-back. * STM-1 Electrical remote loop-back. * STM-1 Optical local loop-back. * STM-1 Optical remote loop-back.

System Access, Control and Management Options:

Telnet
CLI Control Interface (HyperTerminal or VT100)
Windows XP and Windows 7 based GUI (Graphical User Interface)
SNMP V2

OAM: Operation And Management Ports

RS232 Serial Port
USB COM Port
10/100BaseT Ethernet for Telnet and SNMP

Power Supply

Input voltage	- Dual DC -48V Inputs (range -18V DC ~ -72V DC) - Single AC 110V AC to 240V AC, 50 / 60 Hz Inputs - Single -48V DC (range -18V DC ~ -72V DC) input
Power consumption	≤ 6 W (1+0 version) ≤ 8 W (1+1 version)

Environmental

Working temperature	-0 C ~ +50 C for operation
Relative humidity	< 95% (Non condensing)
Altitude	Sea level to 5000 meters

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Mechanical

Rack Mounting	Standard 19 Inch. DIN Rack
Height	136 mm.
Depth	42 mm.
Width	205 mm.

Ordering Information

Product	Descriptions
2301-FA	STM-1 fiber multiplexer (Optical/Electrical converter). Multimode 2 km, 48 V/110-220 VAC for option, SC/FC/ST connector types available
2301-FA/SM-20	STM-1 fiber multiplexer (Optical/Electrical converter). Single mode dual fiber 20 km, 48 V/110-220 VAC for option, SC/FC/ST connector types available
2301-FA/SM-40	STM1 fiber multiplexer (Optical/Electrical converter). Single mode dual fiber 40 km, 48 V/110-220 VAC for option, SC/FC/ST connector types available
2301-FA/SM-60	STM1 fiber multiplexer (Optical/Electrical converter). Single mode dual fiber 60 km, 48 V/110-220 VAC for option, SC/FC/ST connector types available
2301-FA/SM-80	STM1 fiber multiplexer (Optical/Electrical converter). Single mode dual fiber 80 km, 48 V/110-220 VAC for option, SC/FC/ST connector types available
2301-FA/SM-100	STM1 fiber multiplexer (Optical/Electrical converter). Single mode dual fiber 100 km , 48 V/110-220 VAC for option, SC/FC/ST connector types available
2301-FA/SM-120	STM1 fiber multiplexer (Optical/Electrical converter). Single mode dual fiber 120 km , 48 V/110-220 VAC for option, SC/FC/ST connector types available
2301-FA/WDM-20	STM-1 fiber multiplexer (Optical/Electrical converter). Single mode WDM (BiDi) 20 km , 48 V/110-220 VAC for option, SC/FC/ST connector types available
2301-FA/WDM-40	STM-1 fiber multiplexer (Optical/Electrical converter). Single mode WDM (BiDi) 40km , 48 V/110-220 VAC for option, SC/FC/ST connector types available

* Specs and Pictures of the product can be revised according to R&D
* Products design in UK.

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