

OSIRIS DS-1 Mapper Units

Overview



The Positron OSIRIS Multi-service Platform (MSP) is an integrated access solution for the rapidly expanding synchronous optical network (SONET) broadband markets. It delivers the most cost-effective, compact and simple-to-deploy solution for multi-service traffic such as data, voice and video.

DS-1 Mapper Technology

The OSIRIS solutions are designed to map various types of signals over a fiber ring. The DS-1 mappers map DS-1 signals (1.544 Mbps) onto VT1.5 containers on a SONET fiber ring. They are offered in two versions: the standard DS-1, which is available in four-channel and seven-channel models; and the DS-1PM+, which is available in four-channel and eight-channel models. The DS-1PM+ mappers are enhanced versions of the DS-1 mappers, offering increased performance monitoring functions.

Protection Switching Control Unit (PSCU) Technology

The PSCU card performs DS-1 1:N protection switching at the mapper level for the OSIRIS STD, XTD and XTS shelves. The PSCU function is integrated in the alarm and craft interface unit (ACIU) for the OSIRIS Micro Shelf and OSIRIS Micro Wallmount Unit (WMU); it provides 1:1 equipment protection.

Key Benefits

- Remote circuit testing and loopback
- Failure detection
- Enhanced performance monitoring with the DS-1PM+ mappers
- 1:N protection switching via the PSCU

Key Features of DS-1PM+

- End-to-end preventative maintenance and service grade guarantee
- Fault isolation
- Capability to act as a demarcation point at the customer premise, creating a common provisioning and management system
- Enhanced in-service performance monitoring for anomaly and defect detection
- Line- and path-level performance monitoring
- Event detection for test and loopback (in-band and out-of-band signaling)

Technical Specifications

Electrical Interface for DS-1 and DS-1PM+ mapper units

Connector	
OSIRIS STD, XTD and XTS shelves	64-pin AMP Champ
OSIRIS Micro Shelf and Micro WMU	50-pin SCSI
Line Build-out for standard-reach DS-1/VT 1.5 mapper with 0.6 mm (22 AWG) wiring	0–41 m (0–133 ft) 41–81 m (133–266 ft) 81–122 m (266–399 ft) 122–162 m (399–533 ft) 162–200 m (533–655 ft)
Line Code	B8ZS or AMI
Line Impedance	100 ohms \pm 5% resistive
Line Rate	1.544 Mbps

Physical

	Mapper Slot(s)	Protection Slot(s)	PSCU Slot(s)
OSIRIS STD Shelf	1–7	9	PSCU
OSIRIS XTD Shelf	1–7, 9–22	8, 23	PSCU 1, 2, 3
OSIRIS XTS Shelf	6–12	13	PSCU
OSIRIS Micro Shelf DS-1	1, 2	2	—
OSIRIS Micro WMU DS-1	1, 2	2	—

General

LEDs DS-1, DS-1 PM+ DS-1 PM+	1 for card status (initializing, normal, alarm, or failure) 1 additional for software download status
Power Consumption (maximum) Per DS-1, 4 channels Per DS-1, 7 channels Per DS-1PM+, 4 channels Per DS-1PM+, 8 channels Per PSCU	3.2 watts 5.2 watts 6.8 watts 7.9 watts 2.0 watts
Compliance Safety	UL 1950, 3rd Edition; CSA C22.2, No. 950

Product Code	CPR	ECI/Bar Code	CLEI Code	Description	Shelves
800320/4B	C72595	211974	SNCDHA03AA	DS-1 mapper, 4 channels (DSSR 4)	All
800320/7A	J70237	223010	SNC8CJ0BAA	DS-1 mapper, 7 channels (DSSR 7) *	OSIRIS Micro DS-1, Micro WMU DS-1
800334	G72372	235227	SND1BPBBAA	DS-1PM+ mapper, 4 channels	All
800337	G72373	235229	SND1BBMBAA	DS-1PM+ mapper, 8 channels*	OSIRIS Micro DS-1, Micro WMU DS-1
800350/2	C72598	211977	SNCDKN03AA	PSCU	OSIRIS STD, XTD, XTS

* These mappers can also be used with the OSIRIS STD, XTD and XTS shelves, but they will only drop the first four channels.

Ordering Information

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