OCTIS™ Outdoor I/O System

Right angle board connector, cable connector kit and cable assembly

ROBUST I/O FOR HIGH RELIABILITY AND PERFORMANCE

The versatile OCTIS™ I/O system, using multiple industry standard interfaces, features high speed signal and power, lightning protection, EMI shielding, and ease of installation for outdoor, compact and harsh environments.

- Blind mate, float mount, color and physical coding features makes it easy to use and avoids mismating.
- Field termination or factory certified cable assembly options are available.
- Use of standard small form factor interfaces enable greater port to port density. This makes it ideal for outdoor applications like small cells, macro cells, smart radios and RRU/RRH.
- OCTIS™ I/O system is suitable for various applications with standard connector interfaces like SFP/SFP+, QSFP, Signal, PoE (Power over Ethernet), MDR26, Power, Hybrid of Signal & Power and RJ45.

TARGET MARKETS

FEATURES	BENEFITS
Outdoor weather proof	Suitable for most demanding environments. Lightning protection up to 20K A
Rugged design	100 mating cycles, 200N tensile load; suitable for sophisticated equipment used in modern telecom and industrial markets
Multi standard and varying interconnection interface	Suitable for various applications with standard connector interfaces like SFP/SFP+, QSFP, Signal, PoE (Power over Ethernet), MDR26, Power, Hybrid of Signal & Power and RJ45.
Adaptable interface holder and outer housing	Cable mounting, mating and locking remain the same regardless of interface used
Color coding on gland nuts	Visual identification of cable assembly type
System addresses present and future signal and power requirements with option for additional connector interfaces	Upgrade option to higher data rate up to 10G & 25G per lane bandwidth and 35A+ per contact
26mm pitch and <100m length from panel	High density and small form factor
Double locking feature	Tamper proof

OCTIS™ is a trademark of Radiall. OCTIS™ is a joint product development between Amphenol and Radiall.

SIGNAL AND POWER

		MDR 26	RJ45	Signal/PoE Metral® HDXS	Power – Pwr Profile®	Hybrid – Signal & Power
Connector Interface						
Dimensions		94 x 41 x 27mm (Length x Width x Height)	94 x 26 x 27mm (Length x Width x Height)			
Connector Interface Feature		Meets requirement of Low Voltage Differential Signaling (LVDS) applications	Commonly available interface	Meets requirements of PoE++, CAT 5e and ANSI for resistivity to over voltages up to 2500V. Current rating at 1.5A per pin and available in 8 position (4 pair) and 12 positions	High power application with current rating of 16A to 20A/power contact, comes in 2,3 & 4 positions, with wire size from 18AWG to 12 AWG	Signal and power application
Key Electrical Performance		Current Rating: 0.5A	Current Rating: 1A	Current rating 1.5A/ pin	Current Rating: 16A to 20A/power contact	Current Rating: 1.5A/ signal contact and 16A to 20A/power contact
Key Environmental Performance		IP67, 720 hours salt spray resistance; Operating Temperature Range : –55°C to +85°C				
Mating Force		1.50N max./contact	22N max.	0.75N max./contact	29N max./contact	• 0.75N max./signal contact • 29N max./power contact
Unmating Force		0.20N min./contact	9.8N	0.15N min./contact	4N min./contact	• 0.15N min. for signal • 4N min. for power
Target Markets & Applications		• Fiber to the Antenna (FTTA) • 4G+, LTE+, 5G • Smart Radio, RRU/RRH • Broadband • Cellular Wireless Communication System • Distributed Antenna System (DAS) • Smart Grid Network • Small Cells • Portable Outdoor Device				
Board Connector	**P/N**	858F026B2120091	• RJHSE–5480/ RJHSE–5380 (Tab up) • RJLSE–43D86–01T (Tab down)	10133085–101LF	• 2 pos: 10133084–101LF • 3 pos: 10137559–102LF • 4 pos: 10137559–101LF	10131868–101LF
	Description	26 Pin Receptacle Right Angle Solder to Board Connector	RJ45 socket has mating compatibility with standard RJ45 cable assemblies	Metral® HDXS board connector with 4 pair or 8 signal contacts	Power board connector with 2,3 & 4 contacts	Hybrid connector with 8 signal and 2 power contacts
Plug Kit	**P/N**	10148427–101LF	• 10135742–101LF for tab up version • 10143848–102LF for tab down version • 10143848–101LF for tab down reverse lever	10135750–101LF	• 2 pos: 10135752–101LF (Crimp), 10143758–101LF (Screw) • 3 Pos: 10139481–102LF (Crimp), 10143762–102LF (Screw) • 4 Pos: 10139481–101LF (Crimp), 10143762–101LF (Screw)	10135748–101LF
	Description	MDR 26 OCTIS™ plug kit with Connector	OCTIS™ plug kit without RJ45 connector	OCTIS™ plug kit with 4 pair or 8 position signal connector	OCTIS™ plug kit with 2, 3 or 4 position power contacts connector	OCTIS™ plug kit with hybrid of 8 position signal and 2 position power
Finished Cable Assembly	**P/N (Standard/ custom lengths, Double/open ended type)**	–	10137111	10137115	10137117	10137118

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Disclaimer
Please note that the above information is subject to change without notice.

FIBER OPTICS

OCTIS™ offers a range of optical solutions meeting ever increasing bandwidth requirements. SFP version is interoperable with all types of SFP/SFP+ ports and suitable for high data rate applications over long lengths. QSFP version offers enhanced bandwidth (4X SFP/SFP+). In standard OCTIS™ product, transceiver moves outside the box saving significant board space and providing better thermal management. Solutions are also offered for applications in which transceiver is located inside radio with suitable adapters (duplex LC, MPO etc).

		SFP/SFP+	SFP/SFP+ (LC Duplex adaptor & MPO Adaptor)	QSFP to MPO
Connector Interface				
Dimensions		94 x 26 x 27mm (Length x Width x Height)		120 x 41 x 30mm (Length x Width x Height)
Connector Interface Feature		Interoperable with all types of SFP/SFP+ ports and suitable for high data rate applications over long lengths		Interoperable with all types of QSFP ports
Key Electrical Performance		• Power Supply Voltage: 3.3V • Power Consumption: 0.25W (typ.)		Power Supply Voltage: 3.3V
Key Environmental Performance		IP67, 720 hours salt spray resistance; Operating Temperature Range : –55°C to +85°C		
Target Markets & Applications		• Fiber to the Antenna (FTTA) • 4G+, LTE+, 5G • Smart Radio, RRU/RRH • Broadband • Cellular Wireless Communication System • Distributed Antenna System (DAS) • Smart Grid Network • Small Cells • Portable Outdoor Device		
Board Connector	P/N	SFP board (Edge) connector: 10122424–101LF Cage for connectors: • 10133694–101LF (PIP) • 10133694–102LF (Pressfit)	–	QSFP board connector: FS1–Z38–20ZA–60 QSFP cage: 10147366–101LF
Plug Kit	P/N	SFP OCTIS™ Plug Kit without transceiver: 10135746–101LF	Universal Plug Kit for LC Duplex & MPO without connector: 10145416–101LF Panel Bulk Head Receptacle for LC Duplex: 10145423–101LF Panel Bulk Head Receptacle for MPO: 10145295–101LF	Universal Plug Kit Wide Body, MPO to QSFP without connector: 10145289–101LF Panel Bulk Head Receptacle MPO to QSFP: 10145292–101LF

ACCESSORIES FOR SIGNAL, POWER AND FIBER OPTICS

Connector Accessories	Part Numbers
OCTIS™ Dust Cap 26mm	10138810–001
OCTIS™ EMI Cap 26mm	10138809–101LF
OCTIS™ Universal Plug Cap	10135726–001
OCTIS™ RJ 45 Plug Cap	10135728–001
OCTIS™ Plug to Plug LC duplex Adaptor	10148298–101LF
OCTIS™ Plug to Plug MPO Adaptor	10148112–101LF
OCTIS™ Plug to Plug SC Adaptor	10151342–101LF
OCTIS™ SFP Plug Extension kit	10146568–001
OCTIS™ EMI Cap 41mm	10143452–101LF

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TYPICAL OCTIS™ FIELD TERMINABLE PLUG KIT COMPONENTS

1	Protection Cap
2	Connector
3	Holder Subset Kit
4	Housing Subset Kit
5	Rubber Gland
6	Gland Nut + Tightening Cone

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