Wave circulators

F series

Five-port devices operating in optical fiber networks.

A combination of two F circulators
in an LGX housing

main features:

- a combination of a WDM coupler and two optical circulators;
- five-port operating devices;
- simultaneous operation in a II and III optical window;
- double bi-directional transmission in a single fiber at two wavelengths, allowing to save four times as much fiber resources.

standards/certificates

- ZN-OPL-049/14
- ZN-OPL-044/13
- RoHS

market segments:

TELECOMMUNICATIONS and MOBILE OPERATORS
DATA TRANSMISSION OPERATORS
ISP AND CATV OPERATORS
ENERGY SECTOR
DESIGNERS AND CONTRACTORS
DEVELOPERS
UNIVERSITIES
SYSTEM MANUFACTURERS AND INTEGRATORS
UNIFORMED SERVICES
UTILITY COMPANIES
RAILWAY

technical parameters:

Wave circulator	
central wavelength (λc) [nm]	1,310 or 1,550
bandwidth (BW) [nm]	± 30
insertion loss [dB]*	< 1.4
separation [dB]	> 50
insulation [dB]	> 20
polarization stability PLD [dB]	< 0.2
temperature stability TDL [dB]	< 0.02
directionality [dB]	> 55
reflectance [dB]	> 55
optical power [mW]*	< 300
housing type and dimensions (W × H × D) [mm]	
Black Box	51 × 90 × 10
KMS	35 × 130 × 170
LGX	29 × 130 × 158.5
LGX	58 x 130 x 158.5
PMD	19'' x 1U x 200
lead marking	markers or description on the front panel
connector / adapter type	according to customer specifications
operating temperature [°C]	0 to +70

* the specified value does not take into account attenuation caused by connectors and adapters

configuration:

0	1	2	3	4	5	description
F-						wave circulator
	WNS-					wave circulator based on a WDM coupler with 20 dB isolation between ports
		3155-				1,310 and 1,550 nm wavelengths
			BB-			Black Box enclosure
				900-		leads with a 0.9 mm tube
				2000-		leads with a 2 mm cable
			KMS-			KMS housing
			LGX-			single LGX housing
			LGX2-			double LGX housing
			PMD-			PMD 1U housing
				1-		1 circulator in a housing
				2-		2 circulators in a housing
					NC	no connectors (only for the Black Box housing)
					SCA	SC/APC type connectors / adapters
					E2A	E2000/APC type connectors / adapters

example:

F-WNS-31/55-KMS-1-SCA - a wave circulator working at 1,310 nm and 1,550 nm wavelengths, in a KMS type housing equipped with 5 optical ports in the SC/APC connector standard.