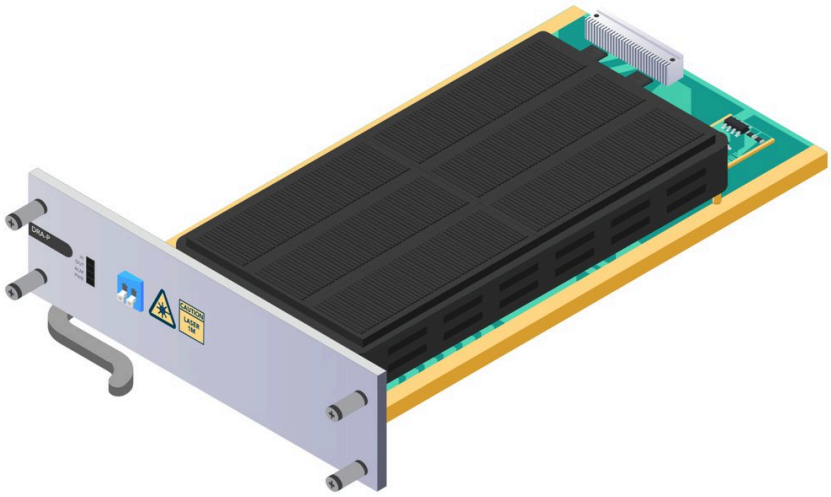
nex·gen

OTN SYSTEMS WDM PLATFORMS

Distributed Raman PreAmplifier Card for WDM Chassis

The Distributed Raman PreAmplifier Card uses stimulated Raman scattering in the transmission fibre itself to amplify a weak C-band signal just before it reaches the receiver. A 14xx nm pump laser counter-propagates against the incoming signal, extending link budget and significantly improving OSNR at the end of a long span. It works alongside conventional EDFA amplification rather than replacing it.



HIGHLIGHTS

Distributed fibre-based gain

Uses the transmission fibre itself as the gain medium via Raman scattering, rather than a discrete doped-fibre amplifier stage.

Boosts the weakest point of the link

Deployed just ahead of the receiver, where the signal is at its weakest after a long span, for maximum OSNR improvement.

Counter-propagating pump design

The pump laser travels against the signal direction, concentrating gain exactly where attenuation has been greatest.

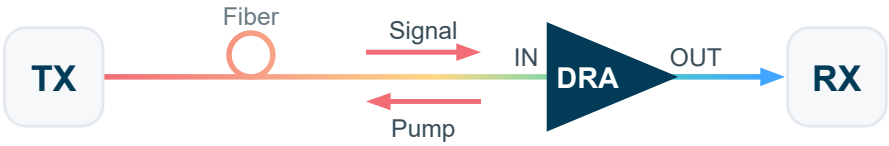
Dual-pump architecture

Two independently configurable pump lasers, each settable up to 500 mW, combine for up to 700 mW total pump power.

Configurable safety threshold

An input optical power threshold protects downstream equipment and can be configured to the link's needs.

FUNCTIONAL STRUCTURE



FRONT PANEL



FORMAT

CARD FOR WDM CHASSIS 2 SLOTS

SPECIFICATIONS

PARAMETER	MIN	NORMAL	MAX	UNIT	REMARK
Working Wavelength	1528		1565	nm	
Input Optical Power	-36		-10	dBm	
Effective Gain	12	14	15	dB	@G.652 fibre >40km, attenuation 0.20 dB/km
Gain Flatness			2.2	dB	@Gain = 14 dB
Pump Wavelength	1423		1465	nm	
Total Pump Output Power	700			mW	Each pump settable to 500 mW, 2 pumps total
Noise Figure			0	dB	
Input Optical Power Threshold	-38			dBm	Configurable
MECHANICAL & SAFETY					
Slots Occupied	2 (compatible with all OTN WDM chassis)				
Laser Safety Class	Class 1M				

ORDERING INFORMATION

NAME	Distributed Raman PreAmplifier Card for WDM Chassis
DESCRIPTION	Distributed Raman preamplifier card, 2 slots. Uses Raman scattering in the transmission fibre to boost a weak C-band signal just before the receiver (counter-propagating pump), extending link budget and improving OSNR; 14xx nm dual-pump laser, a minimum 700mW total pump power (2x500mW dual-pump) and gain flatness up to 2.2dB.
PART NUMBER	**WDM-DRA-P-2S**

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