

eW41002DW Series

Multi Service, Dual Channel Transponder



SMALL SCALE

HIGH DENSITY

DWDM/CWDM

TRANSPONDER

- Dual channels
- 2X10G
- DWDM/CWDM
- OTN (G.709)
- GFEC/EFEC
- 10GbE/OC192/10GFC
- PM of OTN, PCS, MAC
- Low power consumption
- 1+1 protection
- Optical backplane
- Plug and play
- Small and smart

eW41002DW Series is an dual channel 10G transponder card used in eWAVE4107 and eWAVE4214 platform. It provides low cost and highest port density, supports 2X10G transmission with 1 slot of eWAVE4107 or eWAVE4214. SFP+ modules are used in client side, which support 850nm, 1310nm or 1550nm according to different application. Line side ports are implemented by CWDM/DWDM XFP modules which support 40km, 80km transmission.

Similar to eW41001DW, eW41002DW supports multi-service, e.g. 10GbE, OC192, and 10GFC on client port. Each channel of eW41002DW maps client traffic into OTN frame (OTU1e/2e, OTU2, OTU2f) according to ITU-T G.709 and G.sup43, and converts non-specified wavelength to CWDM or DWDM wavelength respectively.

eW41002DW supports both GFEC(G.975), EFEC(G.975.1 - I.4 or I.7) to get better OSNR performance. Customer can configure the type of FEC by software. eW41002DW can provide OTN layer and layer 2 performances monitor information.

- ◆ Client : LAN (10.3125G), OC192 (9.953G), 10GFC (10.519G)
- ◆ Line : OTU2(10.709G), OTU1e (11.049G), OTU2e(11.095G), OTU2f(11.317G)
- ◆ PM : LOS, LOF, LOL, FEC error, B1/B2, PCS error and MAC statistics

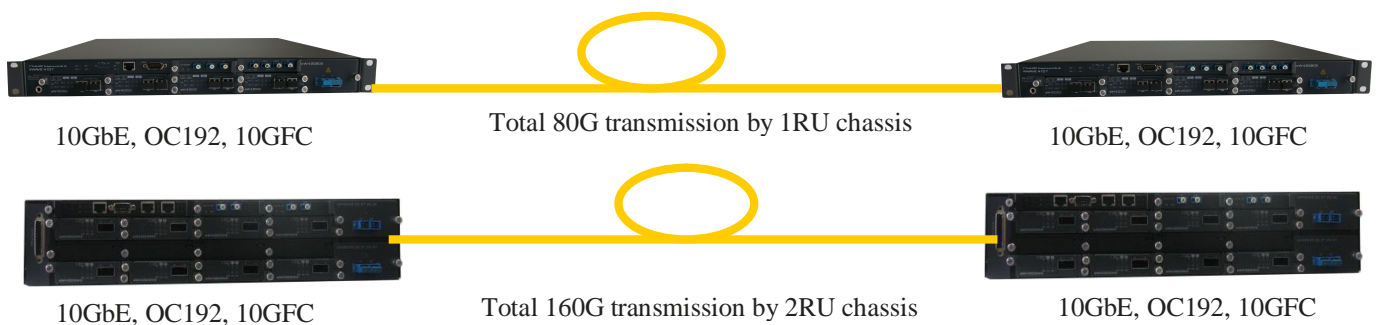
Optical interface performance (Typical, can be specified for different application)

Parameter	Symbol	Min	Type	Max	Unit
Transmitter					
Average Optical Power	Pf	0		5	dBm
Center Wavelength (BOL)	λ_c	$\lambda_c - 25$	λ_c	$\lambda_c + 25$	pm
Center Wavelength (EOL)	λ_c	$\lambda_c - 100$	λ_c	$\lambda_c + 100$	pm
Tx Jitter Generation(peak-to-peak)	Txj			0.3	UI
Side mode Suppression ratio	SMSR	30			dB
Optical Extinction Ratio	ER	9			dB
Transmitter and Dispersion Penalty	TDP			2.5	dB
Average Launch power of OFF transmitter	POFF			-30	dBm
Relative Intensity Noise	RIN			-130	dB/Hz
Transmission distance	D		80		km

Parameter	Symbol	Min	Type	Max	Unit
Receiver					
Receiver Sensitivity(with FEC)	Psen			-29	dBm
Input Saturation Power (Overload)	Psat	-6			dBm
Wavelength Range	λ_c	1260		1600	nm
OSNR limitation (0.1nm bandwidth resolution, with FEC)	OSNR	15			dB
LOS De-Assert	LOS _D			-30	dBm
LOS Assert	LOS _A	-37			dBm
LOS Hysteresis		0.5			dB
Mechanical and Power Specification					
Weight	W		0.3		Kg
Dimension (D x W x H)	Dim	258 x 90.4 x 23.6			Mm
Power Dissipation	Pow			20	W

Typical Applications

- Multi Service Point to Point Application



Wavelength Information:

For tunable transponder: **eW41002DW-Txx.Txx**

For CWDM transponder: **eW41002DW-Cxx.Cxx**

Cxx: wavelength information of each channel

For example:

C51 ----- 1510nm

C53 ----- 1530nm

C55 ----- 1550nm

C57 ----- 1570nm

For DWDM transponder: **eW41002DW-Dxx.Dxx**

Dxx: channel information of each channel

For example:

Dxx	Channel	Freq(THz)	Wavelength(nm)	Dxx	Channel	Freq(THz)	Wavelength(nm)
D18	18	191.80	1563.05	D40	40	194.00	1545.32
D19	19	191.90	1562.23	D41	41	194.10	1544.53
D20	20	192.00	1561.42	D42	42	194.20	1543.73
.....							
D38	38	193.80	1546.92	D60	60	196.00	1529.55
D39	39	193.90	1546.12	D61	61	196.10	1528.77