FOT-D Externally modulated 1550 nm DWDM forward path optical transmitter

- DOCSIS 3.1 compatible frequency range
- Up to 12 DWDM channels in a single fiber
- Adjustable SBS threshold
- Fine tunable wavelength in order to avoid signal degradation by FWM
- Optical link up to 60 km
- For CATV HFC, RfoG and FttH RF overlay solutions

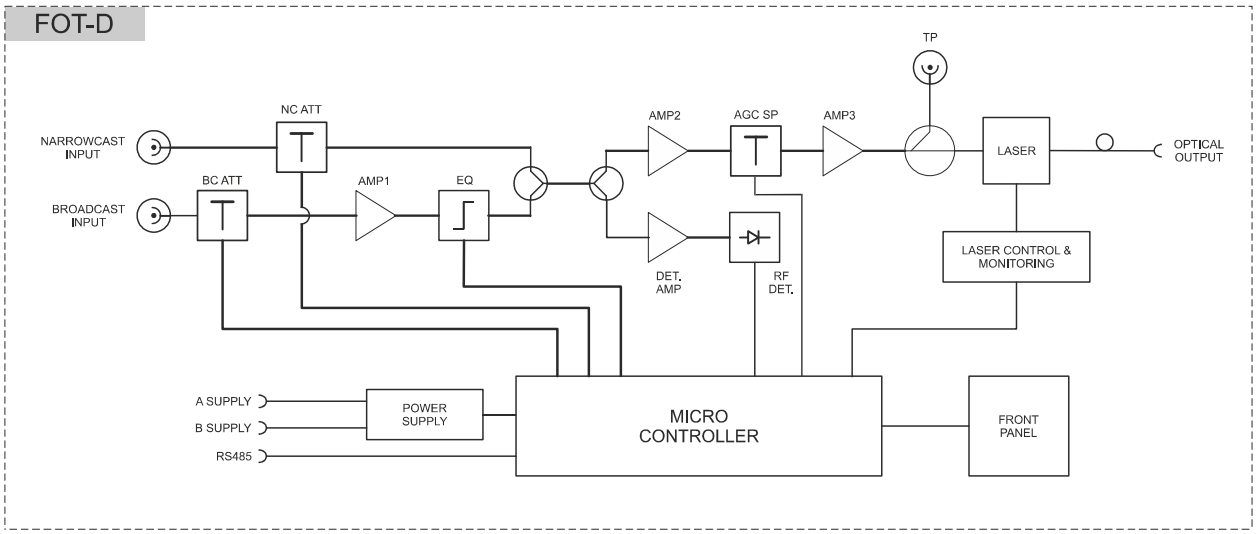
Technical specifications

Optical parameters	
Wavelength [ITU channel]	21, 22, 24, 26, 28, 33, 39, 48, 52, 54, 60, 62
Output optical power [mW]	14 (11.5dBm)
Relative intensity noise (RIN) [dB/Hz]	<-155
SBS threshold [dBm]	12...16 (variable)
Optical connector	SC/APC, EURO2000
Laser type	Linear Externally Modulated (L-EML)
RF parameters	
Frequency range [MHz]	47...1218
Return loss [dB]	>16
Flatness [dB]	±0.5
Nominal RF input level (BC / NC) [dBµV]	80(1) / 100
RF input level range (BC and NC) [dB]	±8
RF offset range [dB]	-6...+3
RF equaliser range [dB]	0...6
RF testpoint (3.2% OMI) [dBµV]	75±1
Port-to-port isolation (NC to BC) [dB]	>50
CTB [dBc]	-60(2)
CSO [dBc]	-55(2)
CNR [dB]	>47.5(2)
Noise-to-power ratio (NPR) maximum / Dynamic range of NPR > 42 [dB]	45 / 7(3)
General parameters	
Power consumption (typical / maximum) [W]	6.9 / 11.2
Operational temperature range [°C]	0...+50
Dimensions [mm]	230x130x35
Weight [kg]	0.6

(1) 92 ITU-T J.83 Annex A 256 QAM channels between 258 MHz and 1002 MHz
(2) Test conditions: 190 CW channels after an optical link of 40 km, received power 0 dBm
(3) Measured with flat full spectrum load between 47 and 1218 MHz, after an optical link of 55 km, received power -2 dBm

Specifications are subject to change without notice!

Block diagram



Ordering information

F	O	T	-	D	5	X	X	-	X	X	-	X	X	-	X

Output power	
14	14mW / 11.5dBm

Optical interface position	
F	**Front side (Recommended type)**
R	Rear side

Output wavelength	
21	1560.61 nm
22	**1559.79 nm (Recommended type)**
24	**1558.17 nm (Recommended type)**
26	**1556.56 nm (Recommended type)**
28	**1554.94 nm (Recommended type)**
33	1550.92 nm
39	1546.12 nm
48	1538.98 nm
52	1535.82 nm
54	1534.25 nm
60	1529.55 nm
62	1527.99 nm

Optical connector	
SA	**SC/APC (Recommended type)**
EU	EURO2000

Specifications are subject to change without notice!