



ACION 8000 Series

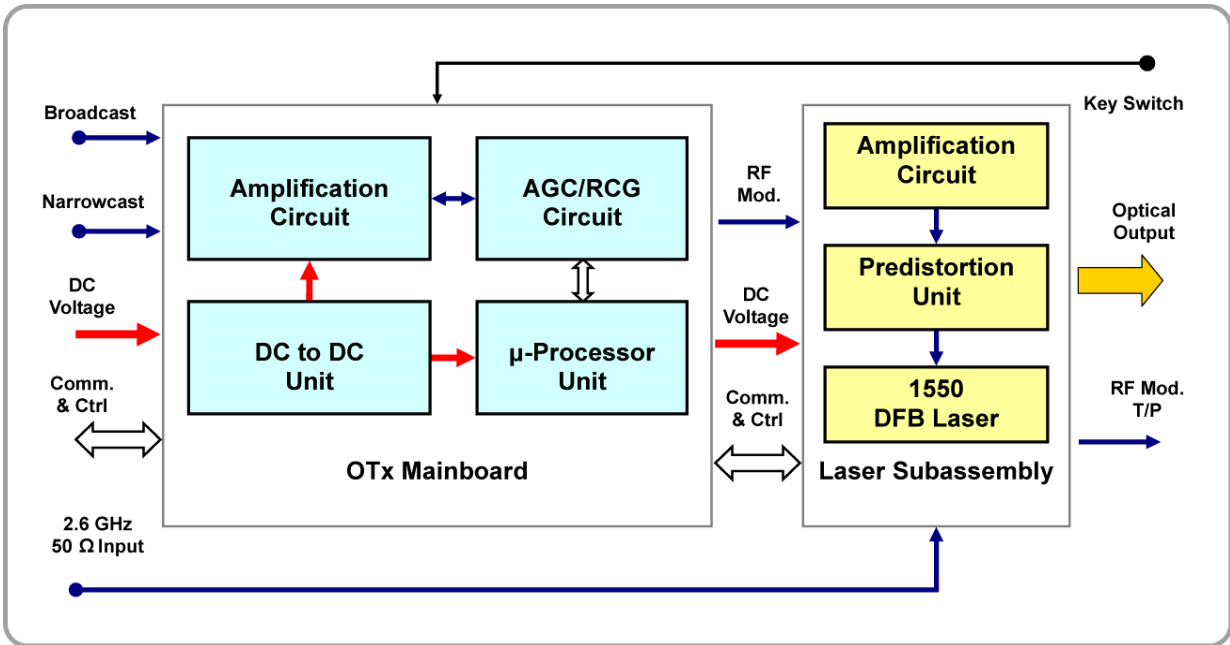
A8KFT3 1550nm Forward Optical Transmitter

The ACION 8000 A8KFT3-1550nm forward transmitter is the head-end side equipment for HFC or FTTH application. This compact and cost effective module is 3RU in height and up to 12 modules can reside in the 19-inch high-density chassis (A8KMF3). The RF transmission bandwidth is up to 2.6GHz and more optical wavelength option is available by ITU grid channel. The high performance AGC and RGC function make wide RF input range for the convenient application in field.

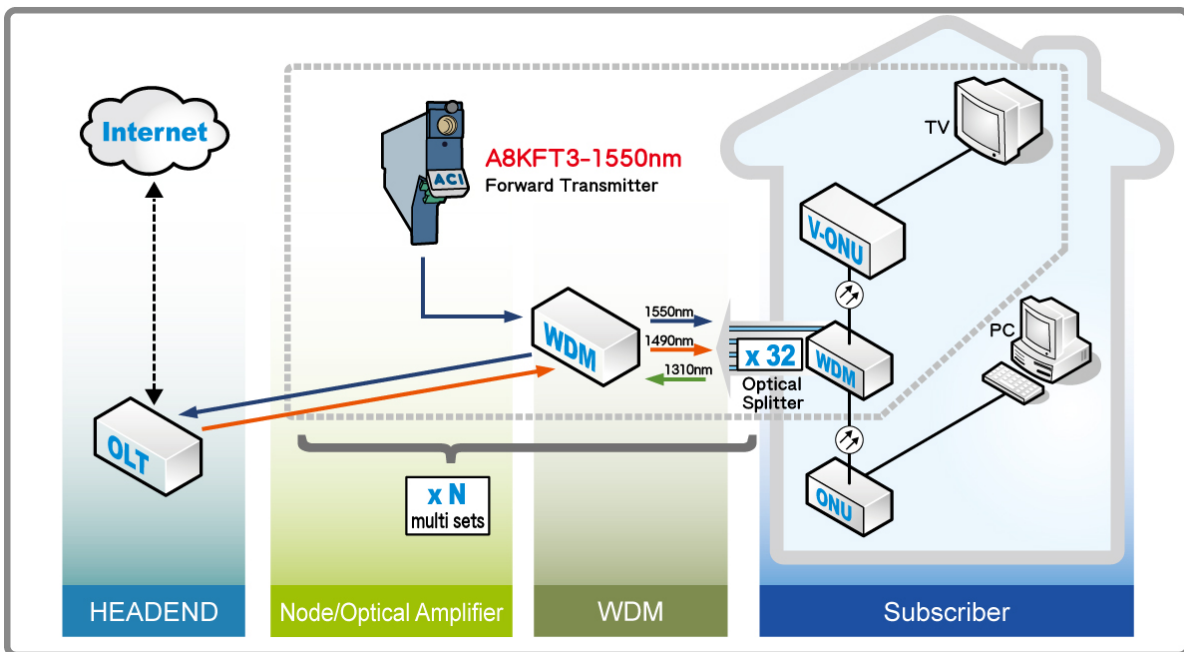
Features

- ◆ CATV RF Bandwidth 50~1003MHz (75Ω)
- ◆ Optional 950MHz~2.6GHz transmission bandwidth. (50Ω)
- ◆ Cooled DFB laser diode with isolator.
- ◆ ITU Grid Channel Option.
- ◆ Plug-in JXP attenuator pads for RF gain control.
- ◆ Hot-swappable.
- ◆ Remote monitor and control function by HMS or SNMP.
- ◆ RF front-panel test point.
- ◆ SC/APC with shutter(standard), FC/APC, or E2000/APC (optional) connector types.
- ◆ Fiber distances up to 20 km.

Block Diagrams



Application



Specifications

ACI		ACION8000 Series A8KFT3 1550nm Forward Transmitter		
PARAMETERS	CONDITIONS	UNITS	SPECIFICATION	NOTES
Optical Specification				
Laser Type			Cooled DFB LD with isolator	
Optical Wavelength		nm	Min	Max
			1528	1563
Connector Type			SC/APC (standard) FC/APC, E2000/APC (optional)	
Optical Power		dBm	10	
RF Parameters				
Operating Bandwidth (75 Ω)		MHz	50 to 1003	
Operating Bandwidth (50 Ω)		MHz	950 to 2600	optional
Channel Loading	NTSC		79 NTSC channels 75 Digital QAM channels	
RF 75Ω Input Return Loss RF 50Ω Input Return Loss	Worst Case	-dB	16 10	
Broadcast RF Input Level (Analog Channels)	AGC mode	dBmV/ch	11 to 19	
	RGC mode	dBmV/ch	15±4 (79 NTSC loading)	
Narrowcast RF Input Level (Digital QAM Channels)	AGC mode	dBmV/ch	26 to 34	
	RGC mode	dBmV/ch	30±4 (QAM carriers @ -6dBc)	
2.6 GHz Transmission RF Input Level		dBm	+0.5 ~ -0.5 (Total 50Ω RF Input Level 0±0.5)	optional
Flatness (Peak-to-Valley)	50 to 1003 MHz	dB	± 0.5	
Test Point	RGC mode only	dB	-20 ± 0.5, compared with RF input to laser	
			-7 ± 1, compared with RF input to module (NTSC channels)	
			-6 ± 1, compared with RF input to module (PAL channels)	
Port-to-Port Isolation (Narrowcast to Broadcast)		dB	50	
Distortion Performance (Optical link distance 20km only)				
Composite Second Order (CSO)	Max	-dBc	58	
Composite Triple Beat (CTB)	Max	-dBc	65	
Cross-Modulation	Max	-dBc	65	
Carrier-to-noise ratio	Min	-dBc	52	

Specifications

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Electrical/Environmental/Mechanical				
RF Connector Type	Rear Panel		F type female	
Module Width		slot	1	
Dimensions	D×H×W	in. (mm)	16.1 x 5.0 x 1.0 (410.0 x 127.0 x 25.9)	
Operating Temperature		°F (°C)	32 to 122 (0 to 50)	
Storage Temperature		°F (°C)	-40 to 149 (-40 to 65)	
Relative Humidity	Non-condensing	%	0 - 95	
Power Consumption	Max	W	15.6	

Ordering Matrix

A8KFT3-1550nm Configuration Sheet																																																																																																													
Customer: _____																																																																																																													
Created By: _____																																																																																																													
ORDERING MATRIX										2012/12/28																																																																																																			
Position			1	2		3	4		5	6	7	8	9																																																																																																
PART NUMBER	A8KFT3-1550nm	—	1	0	—			—																																																																																																					
1-2 <input type="text" value="1"/> <input type="text" value="0"/>	OUTPUT POWER 10 = 10 dBm (standard)																																																																																																												
3-4 <input type="text"/> <input type="text"/>	CONNECTOR SC = SC/APC with shutter (standard) FC = FC/APC (option) E2 = E2000/APC (option)																																																																																																												
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