SRH9300, SRH9500
RFoG ONU burst mode
bi-directional optical receiver

Product description

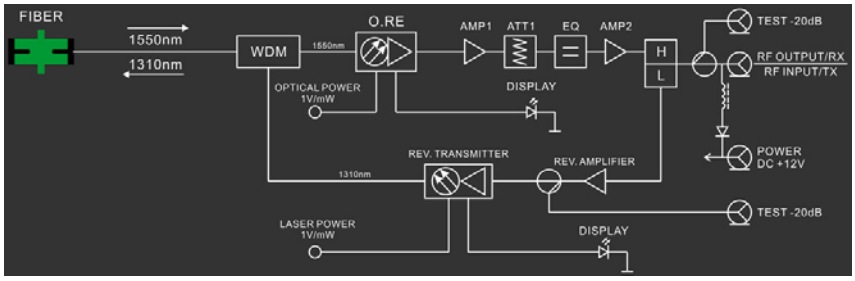
SRH9300, SRH9500 series RFoG ONU, adopts Passive Optical distribution Network (PON) to realize bi-directional, interactive RF business. In FTTH network, it serves to transmission layer of RF video, DAVIC, DOCSIS, extending the optical network to home or building without the need of adjacent HFC optical node.

SRH9300 uplink adopts 1310nm wavelength, SRH9500 uplink adopts 1550nm wavelength which can fully substitute the traditional HFC networks, saving lots of RF amplifiers, thus, it can improve the quality and stability of network operation.

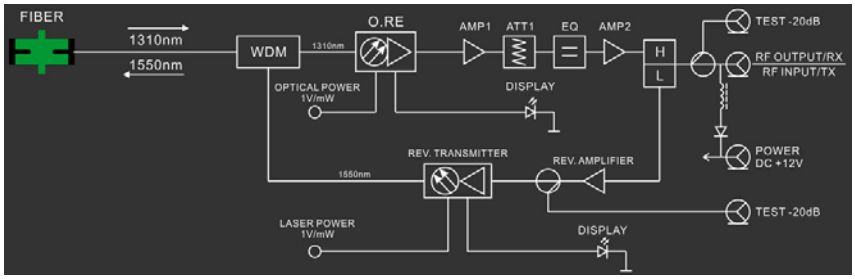
SRH9300, SRH9500 uplink channels adopts burst mode, which can largely reduce the Funneling noise at uplink channels and improve stability of network operation.

Electrical Block Diagram

SRH9300



SRH9500



Product feature

- Uplink channels adopt burst mode.
- Take use of RF and DOCSIS technique configuration optical distribution network.
- Using single-fiber with bi-direction mode that could reduce the fiber consumption.
- No need of HFC optical node, reduce the cost of network maintenance and operation.
- Support the universal HFC STB, CM and Head-end equipment.
- Transparent return path channel (no limitation on protocol and modulation mode).
- Optical AGC function (reach the proper RF level) reduce the funneling noise
- Local feeding or remote feeding can be done through 75Ω coaxial cable
- Aluminum die-casting housing, favorable for heat dispersion

Main application

- 256 RFoG
- PON to substitute HFC

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Model explanation

SRH9 [Wavelength] [Uplink bandwidth] **1A**

Product type	SRH	RFoG ONU burst mode bi-directional optical receiver
Wavelength	3	Uplink 1310nm Downlink 1550nm
	5	Uplink 1550nm Downlink 1310nm
	6	Uplink 1610nm Downlink 1550nm
	9	Uplink 1590nm Downlink 1550nm
Uplink bandwidth	4	5~42MHz
	6	5~65MHz
Fiber mode	1	Single fiber Bi-directional
	2	Dual fiber Bi-directional
Exterior	A	Wall-mounted type
	B	Desk-top type

Technical index

Performance			Index			Supplement
			Min.	Typ.	Max.	
Downlink optical, electrical feature	Receiving wavelength	(nm)	1540	1550	1565	SRH9300
			1300	1310	1320	SRH9500
	Rx Optical power	(dBm)	-8		0	
	Threshold value of optical power alarm	(dBm)	45		-8	
	Bandwidth	(MHz)	52		1100	SRH9340, SRH9540
			88		1100	SRH9360, SRH9560
	Flatness	(dB)			±1.0	
	Impedance	(Ω)		75		
	RF output level	(dBmV)	17		19	-4dB, OMI=3.7%
	RF return loss	(dB)	15			
	CNR	(dB)		48		
	CTB	(dB)		65		
	CSO	(dB)		60		
Return path: optical, electrical feature	Operation wavelength	(nm)		1310		SRH9300
				1550		SRH9500
	Laser type			FP		
	Optical output power	(dBm)	+2		+4	
	Bandwidth	(MHz)	5		45	SRH9340, SRH9540
			5		62	SRH9360, SRH9560
	Flatness	(dB)			±1.0	
	Impedance	(Ω)		75		
	RF return loss	(dB)	16			
	RF input level	(dBmV)	20		45	
	Operation mode of laser		Burst mode			
	Optical output power when closed	(dBm)			-30	
	Threshold value of laser turn-on	(dBmV)	10			RF input
	Laser turn-on time	(us)	0.5		2.5	
	Laser turn-off time	(us)	0.5		2.5	
General feature	Optical connector		SC/APC			
	Optic return loss	(dB)	50			
	RF connector		F-Female			
	Voltage	(VDC)	+10	+12	+16	
	Power consumption	(W)		4		
	Surge protection	(kV)		6		Non-condensation
	Work temp	(°C)	-40		+60	
	Storage temp	°C)	-40		+80	
	Work relative temp	(%)	5		95	
	Size (W)×(D)×(H)		5.1×4.17×1.3 (") 130×106×33 (mm)			

Product series

Model number	wavelength	Fiber mode	Output power	Uplink bandwidth	Downlink bandwidth	Exterior	Connector
SRH9341A	Uplink 1310nm Downlink 1550nm	Single fiber Bi-directional	+2~+4dBm (FP)	5~42MHz	52~1100MHz	A type wall-mounted	SC/APC
SRH9361A				5~65MHz	88~1100MHz		
SRH9541A	Uplink 1550nm Downlink 1310nm			5~42MHz	52~1100MHz		
SRH9561A				5~65MHz	88~1100MHz		

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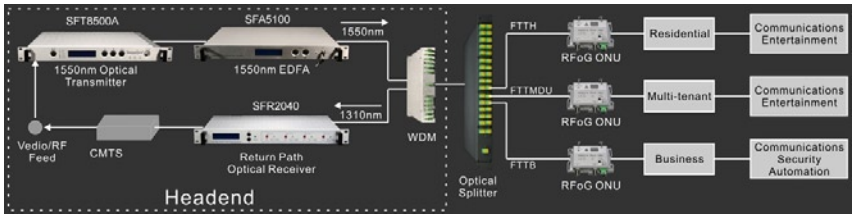
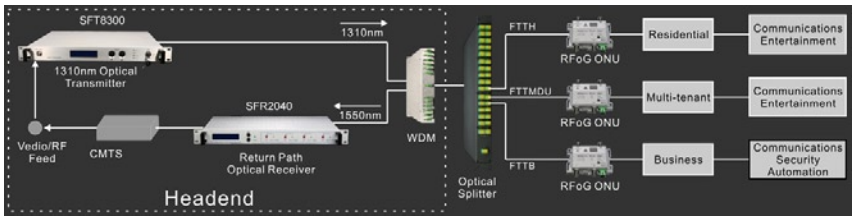
Network application

SRH9300



SRH9500



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