

SRH9600, SRH9900 FTTx PON RFoG ONU burst mode bi-directional optical receiver



Product feature

- Compatible with any FTTx PON technique, realize Triple-play.
- Built-in CWDM is optional, through 1310nm/1490nm and 1610nm (or 1590nm).
- Using single-fiber with bi-direction mode that could reduce the fiber consumption.
- Uplink channels adopts burst mode.
- Take use of RF and DOCSIS technique configuration optical distribution network.
- 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

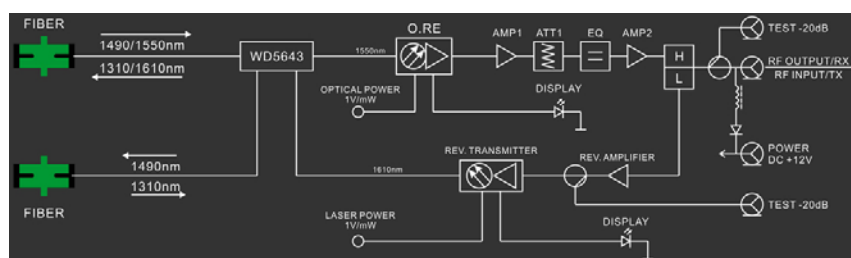
Product description

SRH9600, SRH9900 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. Saving lots of RF amplifier, thus, it can improve the quality and stability of network operation.

SRH9600, SRH9900 uplink channels adopts burst mode, which can largely reduce the Funneling noise at uplink channels and improve stability of network operation.

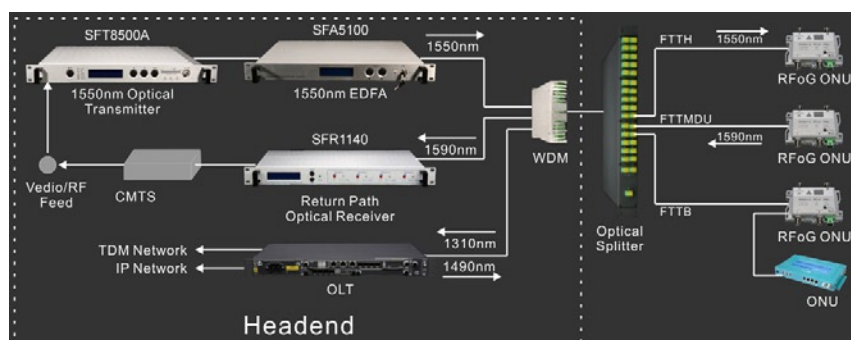
SRH9600 uplink adopts 1610nm wavelength, SRH9900 uplink adopts 1590nm wavelength. Compatible with any FTTx PON technique, realize Triple-play. Built-in CWDM is optional, through 1310nm/1490nm and 1610nm (or 1590nm).

Electrical Block Diagram



Remark: RH9600: TX operating wavelength: 1610nm
RH9900: TX operating wavelength: 1590nm

Network application



Model explanation

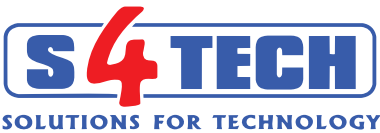
SRH9 [Wavelength] [Uplink bandwidth] **1A**
/[CWDM]

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
CWDM	00	Without
	WD	Built-in

Technical index

Performance			Index			Supplement
			Min.	Typ.	Max.	
Downlink optical, electrical feature	RX operating wavelength	(nm)	1540		1563	
	Pass wavelength	(nm)	1310/1490			Builtin CWDM
	Rx Optical power	(dBm)	-8		0	
	Threshold value of optical power alarm	(dBm)	45		-8	
	Bandwidth	(MHz)	52		1100	SRH9640, SRH9940
			88		1100	SRH9660, SRH9960
	Flatness	(dB)			±1.0	
	Impedance	(Ω)		75		
	RF output level	(dBmV)	13		17	-4dB, OMI=3.7%
	RF return loss	(dB)	16			
	CNR	(dB)		48		
	CTB	(dB)		65		
	CSO	(dB)		60		
Return path: optical, electrical feature	TX operation wavelength	(nm)		1610		SRH9600
				1590		SRH9900
	Laser type			FP		
	Optical output power	(dBm)	+2		+4	
	Bandwidth	(MHz)	5		45	SRH9640, SRH9940
			5		62	SRH9660, SRH9960
	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)			

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Product series

Model number	wavelength	Fiber mode	Output power	Uplink bandwidth	Downlink bandwidth	Exterior	Connector	CWDM
SRH9641A	Uplink 1610nm	Single fiber Bi-directional	+2~+4dBm (FP)	5~42MHz	52~1100MHz	A type wall-mounted	SC/APC	Without CWDM
SRH9661A	Downlink 1550nm			5~65MHz	88~1100MHz			
SRH9941A	Uplink 1590nm			5~42MHz	52~1100MHz			
SRH9961A	Downlink 1550nm			5~65MHz	88~1100MHz			
SRH9641A/WD	Uplink 1610nm			5~42MHz	52~1100MHz			Built-in CWDM For FTTx PON
SRH9661A/WD	Downlink 1550nm			5~65MHz	88~1100MHz			
SRH9941A/WD	Uplink 1590nm			5~42MHz	52~1100MHz			
SRH9961A/WD	Downlink 1550nm			5~65MHz	88~1100MHz			