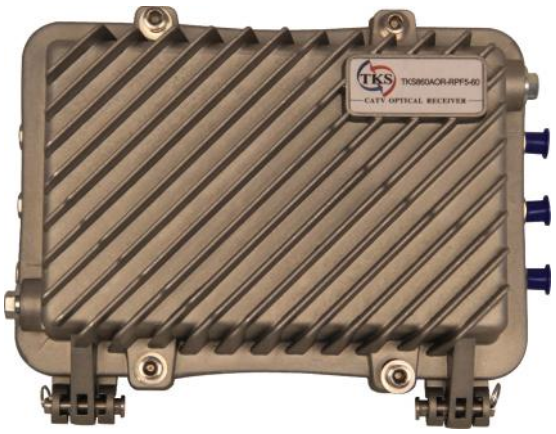
Technical Specification

Optical Receiver with AGC and Return Path Transmitter

TKS1002AOR-RPDC-60

TKS860AOR-RPD-60

TKS860AOR-RPF-60



Sofia, 2015

Product Description

This is the latest high-grade two-output CATV network optical receiver. The pre-amplifier adopts full GaAs MMIC, post-amplifier adopts GaAs module. Optimized circuit design coupled with high-professional design experience; make the equipment achieve good performance indexes. Microprocessor control, digital display the parameters, the engineering debug is especially easy. It is the main equipment to build the CATV network.

Applications:

- High response PIN photoelectric conversion tube.
- Optimized circuit design, SMT process production, optimized signal path, make the photoelectric signal transmission smoother.
- Specialized RF attenuation chip, with good RF attenuation and equilibrium linear, high accuracy.
- GaAs amplifier device, dual power output, with high gain and low distortion.
- Single Chip Microcomputer (SCM) control equipment working, LCD display the parameters, convenience and intuitive operation, and stable performance.
- Due to excellent AGC performance, output level, CTB and CSO are kept when the input optical power is into the range from -9 to +2 dBm.
- Reserved data communication interface, can connect with Ethernet transponder, access to network management system.
- Return emission can select burst mode to sharply decrease the noise convergence and reduce the forepart receiver number.

This product is available in the following types:

- TKS1002AOR-RPDC-60 (Operating RF bandwidth is 1003MHz and RP transmitter can be applied in CWDM systems)
- TKS860AOR-RPD-60 (Operating RF bandwidth is 860MHz and RP transmitter is based on DFB laser)
- TKS860AOR-RPF-60 (Operating RF bandwidth is 860MHz and RP transmitter is based on FP laser)

Technical Specification

Item	Unit	Technical Parameters
Forward optical receiving part		
Optical Parameters		
Receiving Optical Power	dBm	**-** 9 ~ +2
Optical Return Loss	dB	> 45
Optical Receiving Wavelength	nm	1100 ~ 1600
Optical Connector Type		SC/APC
Fiber Type		Single Mode
Link Performance		

C/N	dB	≥ 51 (-2dBm input)	
C/CTB	dB	≥ 65	Output Level 108dBμV EQ 6dB
C/CSO	dB	≥ 60	
RF Parameters			
Frequency Range	MHz	45 ~ 862	45 ~1003
Flatness in Band	dB	± 0.75	± 0.75
Rated Output Level	dBμV	≥ 108	≥ 108
Max Output Level	dBμV	≥ 114	≥ 112
Output Return Loss	dB	(45 ~ 550MHz) ≥ 16 (550 ~ 1000MHz) ≥ 14	
Output Impedance	Ω	75	75
Electronic Control EQ Range	dB	0 ~ 10	0 ~ 10
Electronic Control ATT Range	dB	0 ~ 20	0 ~ 20
Return Optical Emission Part			
Optical Parameters			
Optical Transmit Wavelength	nm	1550 ± 5nm or CWDM Wavelengths	
Output Optical Power	mW	1 or 2	
Optical Connector Type		SC/APC	
RF Parameters			
Frequency Range	MHz	5 ~ 65 (or specified by the user)	
Flatness in Band	dB	± 1	
Input Level	dBμV	72 ~ 85	
Output Impedance	Ω	75	
NPR Dynamic Range	dB	≥ 10 (NPR ≥ 30 dB), use FP laser ≥ 15 (NPR ≥ 30 dB), use DFB laser	
General Performance			
Supply Voltage	V	AC: 35 ~ 90V	
Operating Temperature	°C	-40 ~ 60	
Storage Temperature	°C	-40 ~ 65	
Relative Humidity	%	Max 95% no condensation	
Consumption	VA	≤ 30	
Dimension L x W x H	mm	260 x 200 x 130	

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