

1GHz Direct Modulated Optical Transmitter 1310nm

TKS1310DMT-2x-1000



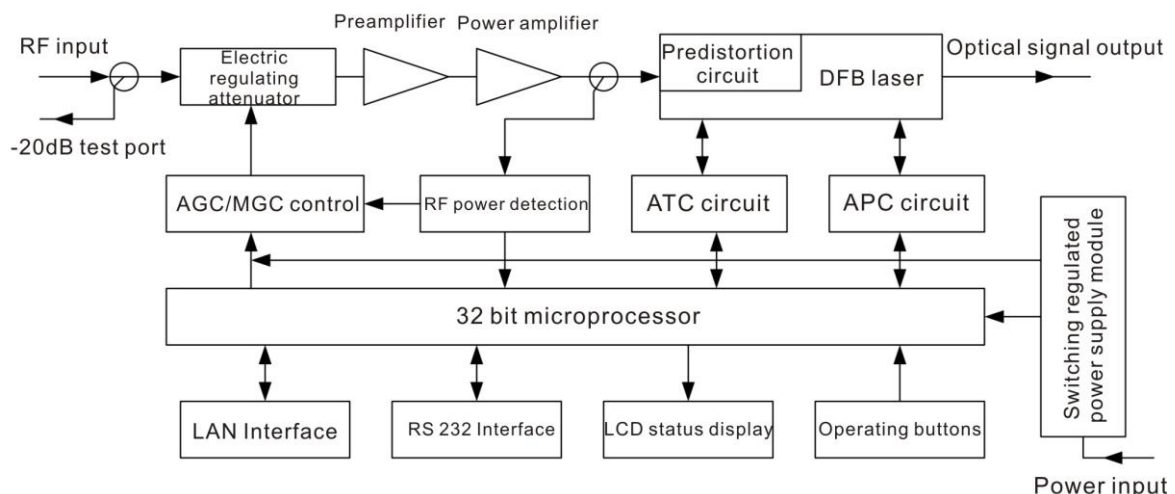
Product Description

Optical transmitter is the most important equipment to construct the CATV HFC network. It mainly used for the long distance optical fiber transmission of TV image signal, digital television signal, telephone voice signal and data (or compressed data) signal. This product does use the high-performance DFB laser as the optical source. The RF drive part adopts RF power digital automatic processing technology and advanced RF pre-distortion circuit, and built-in microcomputer automatic monitoring system, to ensure the excellent performance indicators.

Performance Characteristics

- Adopt high-performance coaxial/butterfly DFB laser, narrow spectral lines, good linearity and high output power.
- The RF drive part adopts the RF power digital automatic processing technology. Automatic processing the drive level power according to the RF input signal level and the number of channels (15-96 channels), make the CSO, CTB and CNR index always at the optimal value to ensure the overall performance.
- Advanced multi-frequency RF pre-distortion technology, combined with the GaAs device, effectively improve the CATV system most important CTB and CSO index, C/N index gets the maximum upgrade.
- Adopt advanced 32-bit processor; coordinate with perfect automatic monitoring system circuit. It can timely and accurately monitor working status of the laser to ensure a stable optical output power and effectively extend the working life of the laser.
- Built-in blue screen 160×32 dot matrix LCD monitor on the front panel, accurately showing all working status parameters.
- 19" 1U standard rack mount, equipped standard IEEE802.3 10Base-T Ethernet interface and RS232 interface, can expediently realize network management monitoring.
- Full support <GB/T 20030-2005 HFC network device management system specification>.

Block Diagram



Technical Specification

Item	Unit	Technique parameters				
		18	20	22	24	26
Optical output power	mW	18	20	22	24	26
Optical link loss	dB	13,6	14	14.4	14.8	15
Optical wavelength	Nm	1310 ± 20				
Laser type		DFB laser				
Optical modulation mode		Direct optical intensity modulation				
Optical connector type		SC/APC				
Frequency range	MHz	1002				
RF input level	dB μ V	72 – 88				
Flatness in band	dB	± 0.75				
RF input impedance	Ω	75				
Input return loss	dB	≥ 16 @ 47 – 550 MHz ≥ 14 @ 550 – 1002 MHz				
C/CSO	dB	≥ 60				
C/CTB	dB	≥ 65				
C/N	dB	≥ 51				
AGC control range	dB	± 5				
MGC control range	dB	0 - 10				
Power supply voltage	V	AC 110V – 250V @ 50Hz				
Consumption	W	30				
Operating temperature	°C	0 – 45				
Storage temperature	°C	-20 – +65				
Relative humidity	%	Max 95% no condensation				
Dimension	mm	483 × 380 × 44				

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