

Optical transceiver • OD30816-80 Series

Technical Specification

CONTENT

1.0 PRODUCT DESCRIPTION.....	1
2.0 PRODUCT FEATURE.....	1
3.0 MAIN APPLICATION.....	2
4.0 SELECT INDICATOR.....	2
5.0 TECHNICAL INDEX.....	3

1.0 Product description

OD30816-80 digital series optical transceiver, adopts digital video coding technique and WDM technique. With its full-found, it can satisfy user's need for long distance and high quality optical fiber transmission of multi-path digital video, audio, data and Ethernet. The product includes single fiber one way digital video, single fiber 64 routes video or 128 routes audio and data uni-directional and bi-directional application.

OD30816-80 can transmit the camera audio/video signal, camera and tripod head control data as well as other control function to central control room from remote end by optical fiber. It can be widely used in the remote monitoring, video conference, video medical , remote education and other systems of public road, traffic, industrial and mining, community ect.

2.0 Product feature

- Adopt 10Bit digital video coding, can reach the transmission quality of secondary broadcast video/audio.
- Automatically compatible PAL/NTSC/SECAM video mode.
- No cross interference of the analog frequency modulation/amplitude modulation optical transceiver.
- 24 digit PCM digital audio coding.
- Data supports the interface of RS-232, RS-422, RS-485, Manchester, power switch signal, 10~100M Ethernet and so on. Besides, it has main data communication protocol.
- Multi-mode: 0-5Km.
Single mode:0-20Km, 0-40 Km, 0-60 Km, 0-80 Km, 0-100Km.
- 0 Km application,unsaturated and no need to modulate.
- Support cascade type self-heal circle net function.
- Third grade anti-thunder technique.
- Flexible network construction,module cassette chassis,in dependent structure or standard 1U casing optional.

3.0 MAIN APPLICATION

- Video, audio transmission system of CATV.
- Highway, traffic monitor, communicate system.
- City community intelligent monitoring, communication system.
- Market, industrial and mining area, electronic safety monitor system.
- Military communication system.
- Campus network, videoconference, medical treatment video system.

4.0 SELECT INDICATOR

- POWER --- Lighten when power turn on
- LOCK --- Receiving lock indicator, lighten when establishing the correct link with transmit leg, to show receiving data
- DATA --- Data indicator light twinkles when the serial data level used for communications change
- LINK --- Lighten when IP network connects in the right way.
- SPD --- IP network communication rate, 100M --- lighten, 10M --- extinguish
- DUP --- FDX --- lighten, semiduplex --- extinguish

5.0 TECHNICAL INDEX

Parameter			Index
Video feature	Coding	(Bit)	10
	Sampling frequency	(MHz)	15.36
	Band width	(MHz)	8
	DG	(%)	<1 (Max)
	DP	(°)	<1 (Max)
			≤0.5 (Typical)
	FT	(%)	<0.5 (Max)
	SNR	(dB)	>67 (weighing)
	Input/output resistance	(Ω)	75 (Disequilibrium)
	Input/output level		1.0Vp-p
Video port		BNC	
Audio feature	Sampling frequency	(KHz)	52.3
	Frequency response	(KHz)	10Hz-20KHz
	Coding	(Bit)	24
	SNR	(dB)	>85
	Audio input/output resistance	(Ω)	600, 10K, 47K disequilibrium (equilibrium)
Nonlinear distortion	(%)	<1, (1KHz)	
Data feature	Physical interface		Shield surpass 5type RJ45
	Data direction		Forward/reverse /Bi -direction
	Data form		RS232/RS422/RS485/Manchester
	Rate	(Kbps)	0 ~ 256
Optic feature	Physical interface		SC/UPC, SC/APC, FC/UPC, FC/APC, ST/PC
	Optical fiber type	(μm)	Single mode: 9/125
			Multi-mode: 62.5/125
	Wavelength	(nm)	Single mode: 1310/1550
Multi-mode: 850/1300			

	Receiver sensitivity	(dBm)	-35(1 route video series)	
			-28(more than 2 route audio system)	
	Optical link	(dB)	≤25 (1 route audio)	
General feature	Power supply	(V)	220 city power	
	Work temperature	(°C)	-40 ~ +65	
	Storage temperature	(°C)	-40 ~ +85	
	Input Power	(W)	≤ 70	
	Mean-time-to double failure		>100,000 hours	
	Size, weight			1U: 482(W)×280mm(L)×44mm(H), ≤3Kg
				5U: 482mm(W)×242mm(L)×222mm(H), ≤8Kg
				At most 16 slot, 64 route video
Module insert card type			222mm(W)×210mm(L)×28mm(H)(1 slot), ≤1Kg	
			222mm(W)×210mm(L)×51mm(H)(2 slot), ≤1.5Kg	

Remark:

- The casing includes the video card, fan and power supply. The fan with the function of radiating heat takes 25 percents' space of the casing (1 U). The video card inserter (such as 1V2A/2V4A card) (4 U) with 16 ports can be inserted with different card.
- The 5 U casing can solve the problem of placing in the optical transceivers' room. It can network flexibly. One can choose the point-to-point transmitting form, or use several video cards to transmit video, audio data simultaneously on one fiber with the Wavelength Division Multiplex tech