

# **OD3000A**

# Digital video/audio/data optical transceiver

#### PRODUCT DESCRIPTION

OD3000A digital series optical transceiver, adopts digital video coding technique and WDM technique to satisfied user's multipath digital video, audio, data, ethernet's long distant high quality optical fiber transmission because of its full-found. Product including single fiber one way digital video, single fiber 64 routes video, 128 routes audio and data uni-direction and bi-direction complication.

OD3000A 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.

#### PRODUCT FEATURES

- ▶ 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.
- ▶0Km 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, independent structure or standard 1U casing optional.

## **MAIN APPLICATION**

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



## **STATUS 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 communications rate, 100M --- lighten, 10M --- extinguish
- ▶ DUP --- FDX --- lighten, semiduplex --- extinguish

## **TECHNICAL INDEX**

	Parameter	Index					
	Coding	(Bit)	10				
	Sampling frequency	(MHz)	15.36				
	Band width	(MHz)	8				
	DG	(%)	<1 (Max)				
\ \ \ id		(0)	<1 (Max)				
Video feature	DP	(°)	≤0.5 (Typical)				
ture	FT	(%)	<0.5 (Max)				
	SNR	(dB)	>67 (weighing)				
	Input/output resistance	(Ω)	75 (Disequilibria)				
	Input/output level		1.0Vp-p				
	Video port		BNC				
	Sampling frequency	(KHz)	52.3				
Audio feature	Frequency response	(Hz)	10~20K				
	Coding	(Bit)	24				
	SNR	(dB)	>85				
	Audio input/output resistance	(Ω)	600, 10K, 47K disequilibria(equilibrium)				
	Nonlinear distortion	(%)	<1, (1KHz)				
	Physical interface		Shield surpass 5type RJ45				
Data	Data direction		Forward/reverse /Bi -direction				
Data feature	Data form		RS232/RS422/RS485/Manchester				
	Rate	(Kbps)	0 ~ 256				



Physical interface         SC/UPC, SC/APC, FC/UPC, FC/APC           Optical fiber type         (μm)           Multi-mode: 62.5/125           Single mode: 1310/1550	PC, ST/PC
Optical fiber type (µm)  Multi-mode: 62.5/125	
Multi-mode: 62.5/125	
O Single mode: 1310/1550	
O Managements	
Wavelength  Wavelength  (nm)  Single mode: 1310/1550  Multi-mode: 850/1300	
-35(1 route video series)	
Receiver sensitivity (dBm) -28(more than 2 route audio sy	stem)
Optical link (dB) ≤25 (1 route audio)	
Power supply (V) 90~265 city power	
Work temperature (°C) -40 ~ +65	
Storage temperature (°C) -40 ~ +85	
Work humidity (%) 0 ~95 (uncondensation)	
Mean-time-to double failure >100,000 hours  1U: 482(W)×280mm(L)×44mm(H	
1U: 482(W)×280mm(L)×44mm(H	), ≤3Kg
o       Size, weight         5U: 482(W)×242mm(L)×222mm(F	I), ≤8Kg
at most 16 slot, 64 route vid	eo
222nm(W)×210nm(D)×28nm(H)(1 s	lot), ≤1Kg
Module insert card type  222nm(W)×210nm(D)×51nm(H)(2 sld	ot), ≤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) with16 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

### **MODEL EXPLANATION**

Division Multiplex technology.

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Digital video/ audio/data/ Ethernet optical	Kilometer		Power supply		Product type		Channels of video		Channels of audio		Channels of optical transmitter		Channels of optical receiver		LAN	
transceiver	02	20Km	2	220V	Т	Transmitter	1	1 channel	2	2 channels	0	No	0	No	L	LAN
1	04	40Km	1	110V	R	Receiver	2	2 channels	4	4 channels	1	1 channels	1	1 channels	0	Withou
	06	60Km	150			Ü	4	4 channels	6	6 channels	2	2 channels	2	2 channels		20
	08	80Km					6	6 channels	12	12 channels	3	3 channels	3	3 channels		
	10	100Km					8	8 channels	16	16 channels	4	4 channels	4	4 channels		
	12	120Km														