



# X WAVE BAND OPTICAL DELAYED LINE MODULE

## FEATURES

- ◆ Large bandwidth 8 GHz-12 GHz
- ◆ High delay accuracy
- ◆ Simple power supply
- ◆ Small size/light-weight/strong capability of anti-electromagnetism



## APPLICATIONS

- ◆ Communication target distance emulating
- ◆ Target signal delay processing
- ◆ RF photonic signal processing

## KEY TECHNICAL PARAMETERS

ELECTRICAL SPECIFICATIONS					
PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
Operating frequency	3dB bandwidth	MHz	8000		12000
Gain		dB	-3	0	3
Gain flatness		dB			±2
Delay time		us	0.1	10	300
Delay accuracy *	Temperature ±5°C	%	0.1	1	-
VSWR	TX RF <sub>in</sub> /RX RF <sub>out</sub>				2:1
Input power at 1dB compression		dBm		15	
Spurious-free dynamic range	At 10 GHz bandwidth	dB/Hz <sup>2/3</sup>		100	
Maximum input power	No damage	dBm			20
RF connector	SMA female				
Impedance	TX RF <sub>in</sub> /RX RF <sub>out</sub>	Ohms		50	

NOTE: -10dBm input power      \* Delay accuracy minimum not less than 5ns



INTERNAL OPTICAL PERFORMANCE SPECIFICATIONS					
PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
Fiber	Signal mode fiber(9/125um)				
Spectral width	FWHM	nm		0.1	
Optical power in fiber		mW	3	6	10
Emission wavelength		nm		1550	
acceptable input optical power		mW		6	10
Acceptable optical wavelength		nm	1200		1650
NOTE:					

POWER AND CONTROL REQUIREMENTS					
PARAMETERS	CURRENT/ROOM TEMPERATURE 25 °	PIN	MIN.	TYP.	MAX.
Power source	AC power supply		110V	220V	
Control command*	RS232		-	-	-
NOTE:*The user can specify the interface type of control command					

### BLOCK DIAGRAM

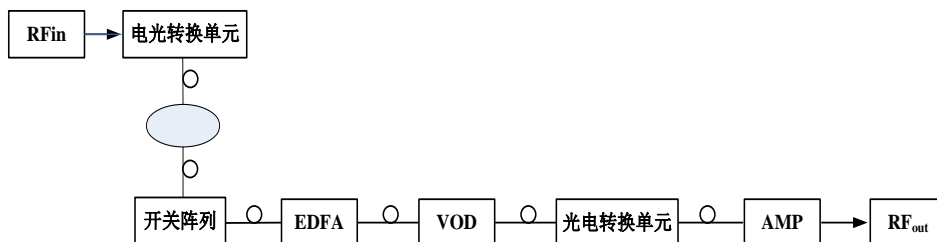


Figure 1-- Block diagram



## SIZE AND STRUCTURE

Size and structure please see figure 2.

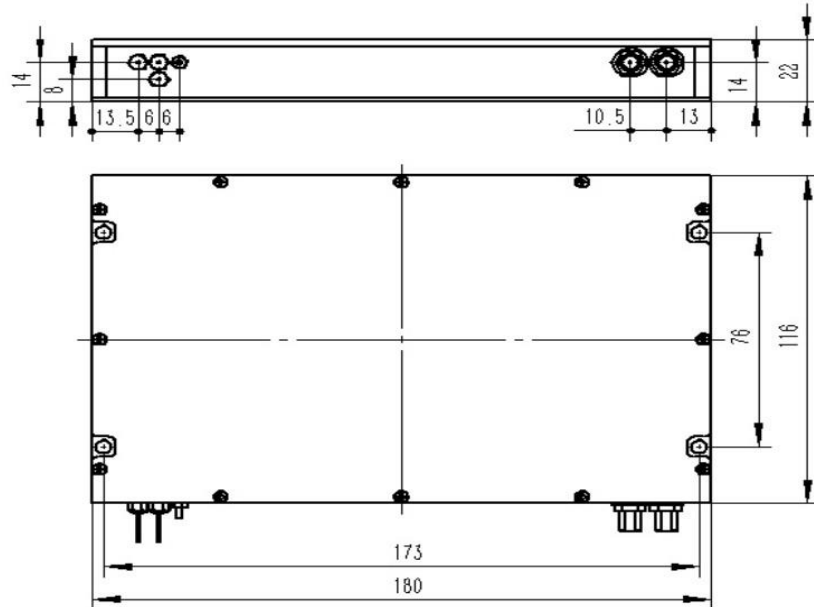


Figure 2- Size and structure diagram

## ENVIRONMENTAL CONDITIONS

Quality level	Commercial(O)	Industrial(I)	Custom(C)
Environmental			
Operating temperature	0°C ~ +40°C	-20°C ~ +50°C	-55°C ~ +70°C
Storage temperature	0°C ~ +50°C	-40°C ~ +70°C	-55°C ~ +85°C
Relative humidity	\	95%	95%
Vibration	\	\	RMS meet different requirements
NOTE	If you have special requirements please contact manufacturer		



## ORDERING INFORMATION

