Ver. 2.4en

DWDV-1000 (100GHz)

VOA DWDM with EDFA

With VOA, EDFA Dense WDM

Technical index

Content

1.0 PRODUCT DESCRIPTION

Huatai DWDV-1000 series, integrate of DWDM and Electronically controlled variable optical attenuator (VOA) in 1RU or 3U chassis, each channel of DWDM has one high-resolution electronically controlled variable optical attenuator, adjust the optical power. Compact and simple device structure reducing the number of connections between devices, improve the system parameters and device reliability. It can be easily and flexibly used in DWDM system inter-channel power adjustment and automatic balance, optical add-drop multiplexing (OADM).

Each channel of DWDV has output optical power monitor, detection accuracy $\leqslant \pm 0.1$dB. Automatic power control mode setting available. According to the different application of the network, DWDV-1000 has MU, DE, DM, AD four different optical ways optional. RS232 and RJ45 are the communication and SNMP interface, LCD in the front panel supply all the operate parameters and fault alarm. All the optic ports can be installed in the front panel or back panel.

DWDV-1000: 100GHz channel spacing.

DWDV-2000: 200GHz channel spacing (Optional).

2.0 Product feature

- ≤0.1dBhigh resolution voltage-controlled adjustable attenuator.
- ≥20dB attenuation dynamic range, option≥30dB.
- Attenuation value set accuracy≤±0.2dB.
- Power value set accuracy≤±0.1dB.
- Automatic power controlled (APC) mode can be set.
- Based on mature tech of think film.
- 100GHz channel space, optional 200Ghz channel space (DWDV-2000).
- Four types of optical line mode, suitable for different networks.
- High channel isolation.
- Loss insertion loss, low polarization dependence loss.
- LCD displays working status and parameters.
- Perfect RS232 and SNMP.
- High stability, high reliability.
- Structure compact.
- Excellent P/P ratio

3.0 Main application

- DWDM system channel power adjust and equilibrium
- OADM
- CATV
- FTTx PON
- Satellite L-Band fiber link
- Lab application
- Satellite L-Band optical fiber link
- Lab application

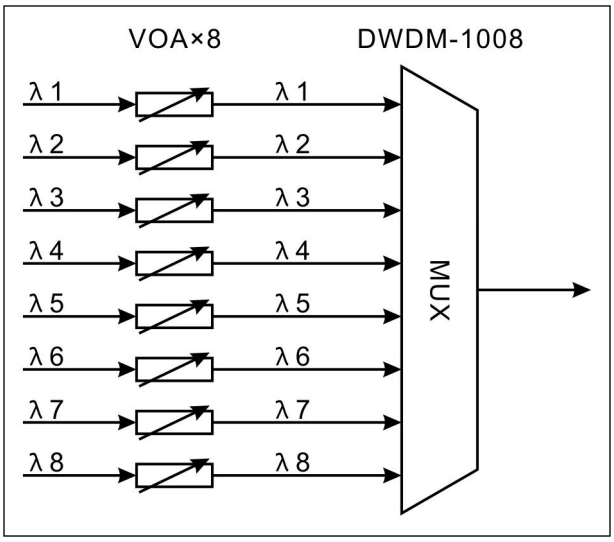
4.0 Technical index

Performance			Index		Supplement
			DWDV-1000	DWDV-2000	
Operating wavelength range		(nm)	C/L-Band		
Operating center wavelength		(nm)	ITU-T		
Operating wavelength accuracy		(nm)	±0.03		
Channel spacing		(GHz)	100	200	
Channel pass band (@-0.5dB bandwidth)		(nm)	≥0.22	≥0.50	
Inserting loss		(dB)	4~8		1008B, 2008B
Inserting loss inconformity		(dB)	≤1.5		1008B, 2008B
Channel ripple		(dB)	≤0.5		
Isolation	Adjacent	(dB)	≥30		
	Non-adjacent		≥40		
Polarization dependence loss		(dB)	≤0.5		
Polarization mode dispersion		(ps)	≤0.10		
Optical power setting accuracy		(dB)	≤±0.1		
VOA setting accuracy			≤±0.2		
VOA dynamic range		(dB)	≥20		
			≥30		
With unit power off			Keep ATT/Keep		K Type
			Open ATT/Min		O Type
			Closed ATT/≥40dB		C Type
SNMP network management interface			RF45		
Serial interface			RS232		
Power supply		(V)	90~265		220VAC
			30~72		-48VDC
Power consume		(W)	<50		
Operating temp.		(℃)	0~65		
Storage temp.		(℃)	-40~+80		
Relative humidity		(%)	5~95		

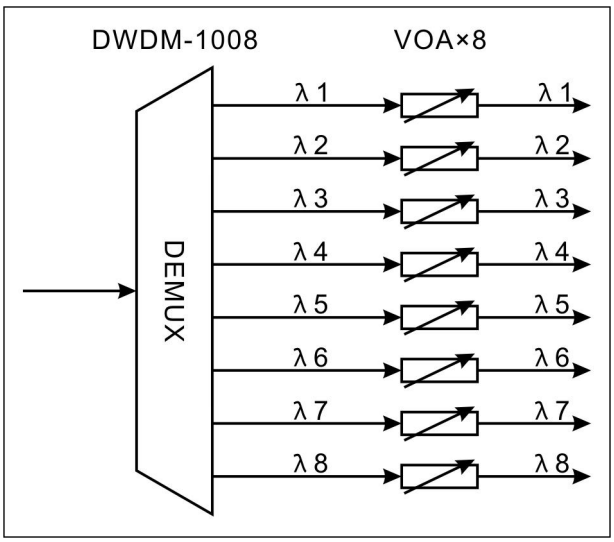
Size(W)×(D)×(H)	(")	19×14.5×1.75	1RU(19")
		12.5×15.4×5.25	3D (12.4",desk-type)

5.0 Optical path drawing

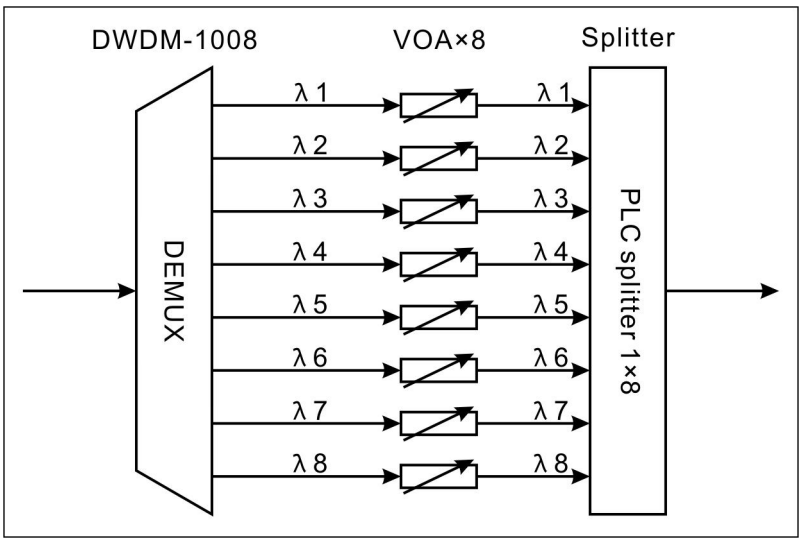
5.1 MU type (Multiplexing)



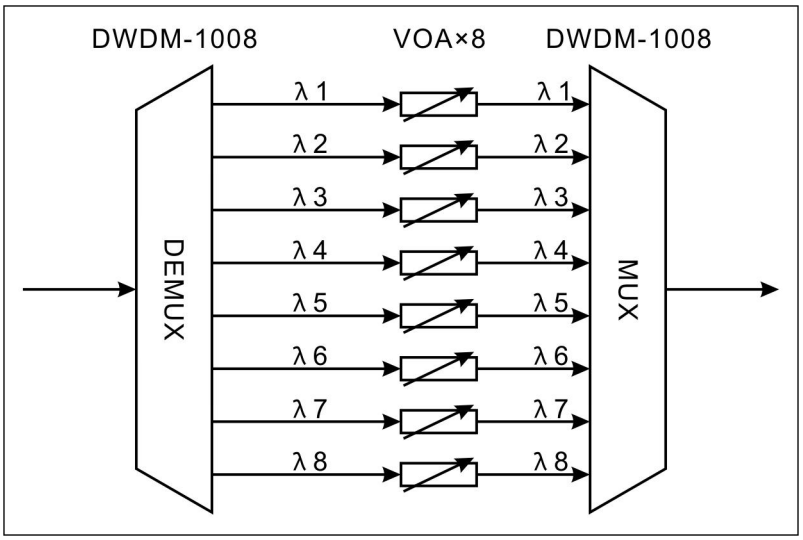
5.2 DE type (Demultiplexing)



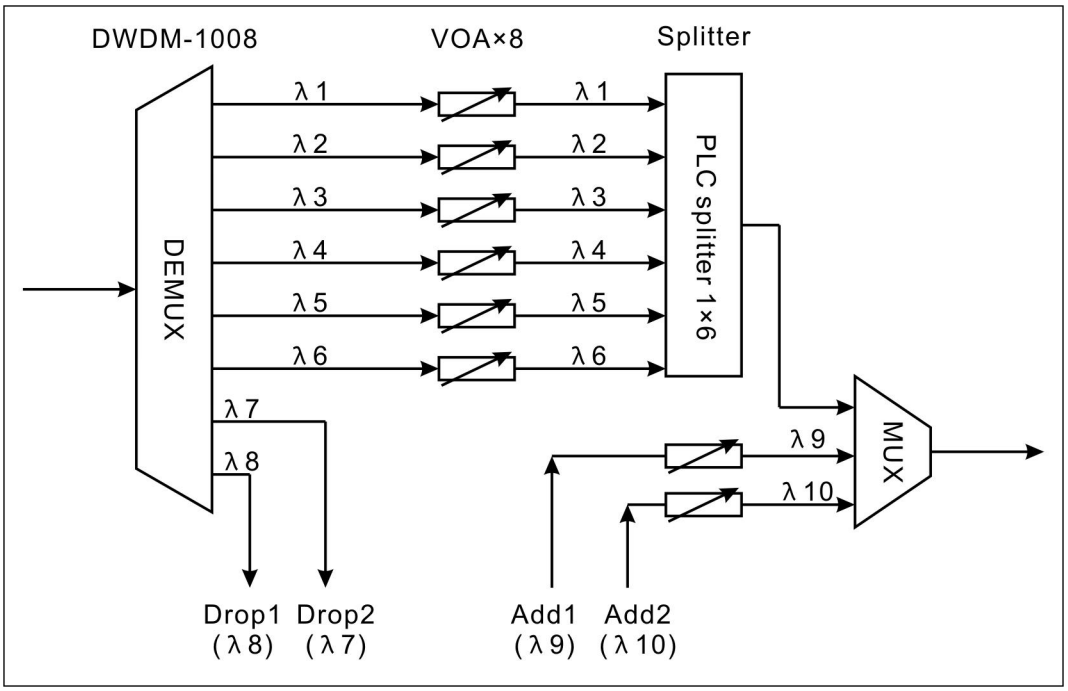
5.3 DM1 type (DEMUX/MUX)



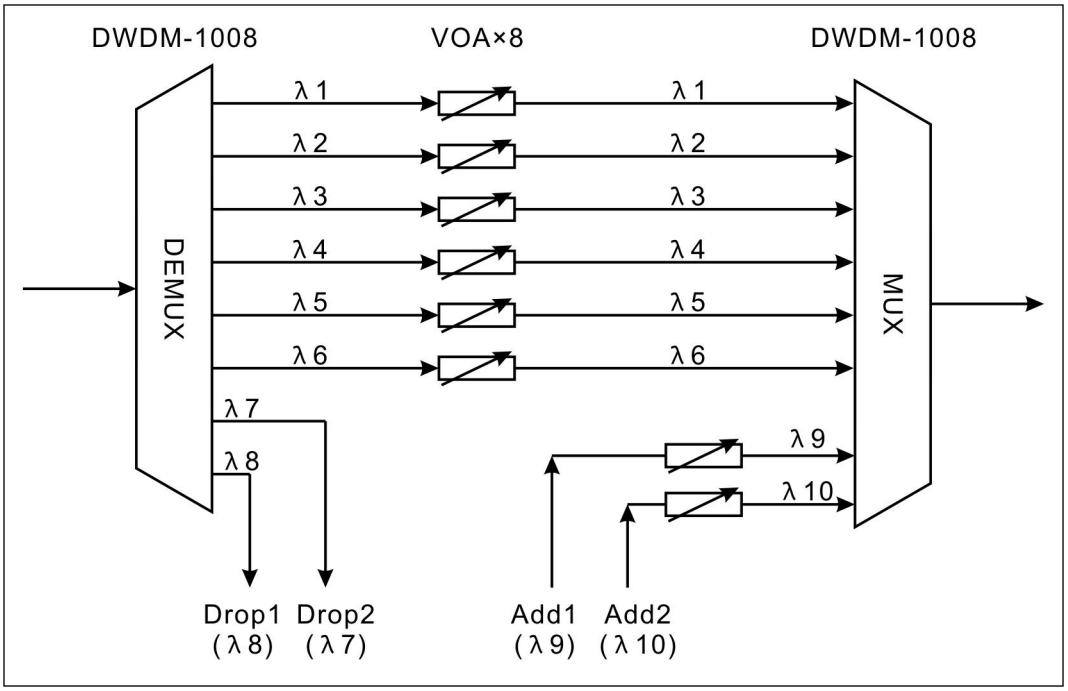
5.4 DM2 type (DEMUX/MUX)



5.5 AD1 type (OADM)

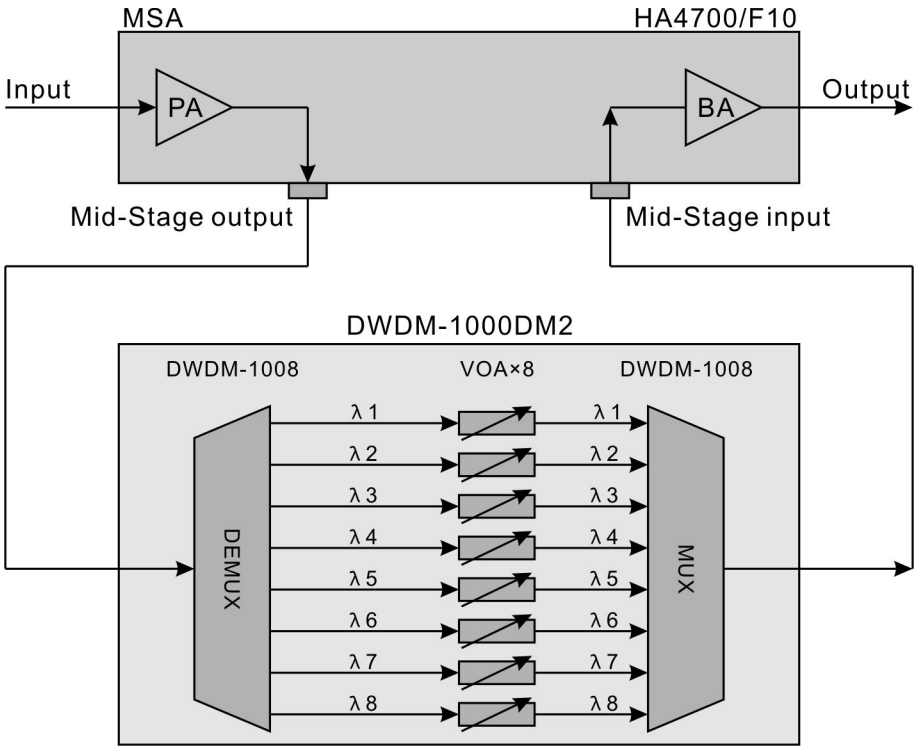


5.6 AD2 type (OADM)

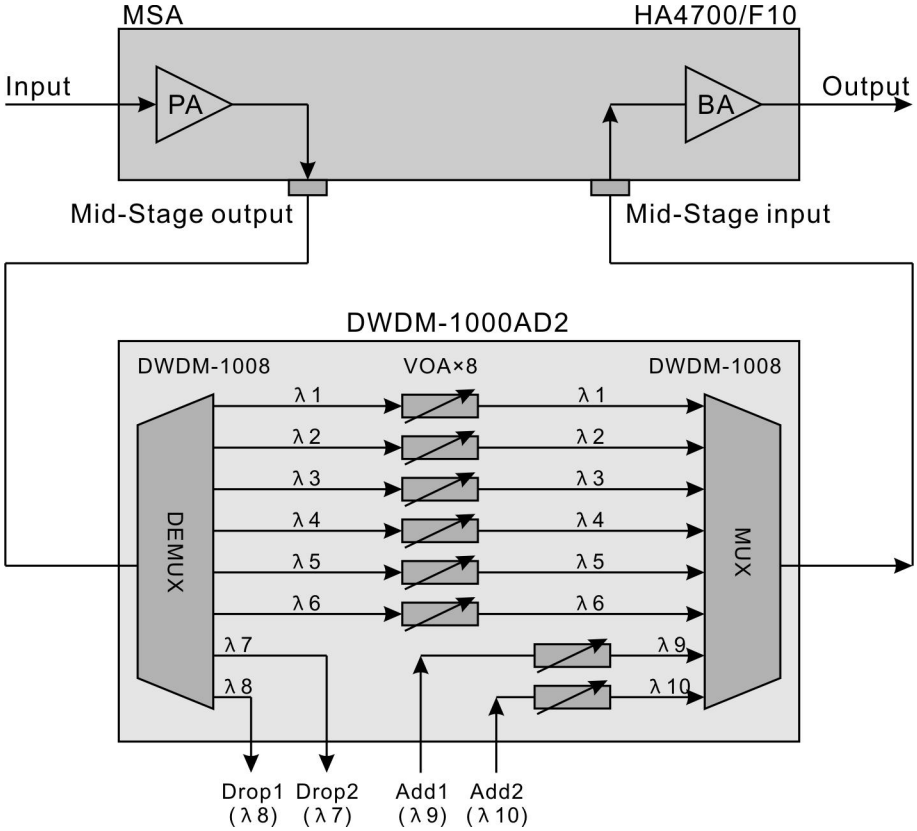


6.0 The application drawing in MSA

6.1 The application drawing of DM type in MSA



6.2 The application drawing of AD type in MSA



7.0 Product series

Model	Channel spacing	Number of channes	Dynamic range	With unit powered off
DWDV-1004-20/K	100GHz	4CH	⩾20dB	Keep
DWDV-1008-20/K		8CH		
DWDV-1016-20/K		16CH		
DWDV-1032-20/K		32CH		
DWDV-1004-30/K	100GHz	4CH	⩾30dB	Keep
DWDV-1008-30/K		8CH		
DWDV-1016-30/K		16CH		
DWDV-1032-30/K		32CH		
DWDV-1004-30/O	100GHz	4CH	⩾30dB	Open
DWDV-1008-30/O		8CH		
DWDV-1016-30/O		16CH		
DWDV-1032-30/O		32CH		
DWDV-1004-30/C	100GHz	4CH	⩾30dB	Closed
DWDV-1008-30/C		8CH		
DWDV-1016-30/C		16CH		
DWDV-1032-30/C		32CH		

Remark: 1. Channel spacing optional 200GHz (DWDV-2000)

2. Channel number and channel wavelength can be selected by the user.
3. Attenuation dynamic range can be selected by the user.
4. Optical route model optional WU, DE, DM, AD.

8.0 Model explanation

DWDV – 10 □□ □□ – □□ / □ – 1U – F / SA – 22

Product series		Channel spacing		Number of channel		Type		Attenuation range		Power-down attenuation state		Exterior		Optical port position		Connector		Power supply	
DWDV	With VOA DWDM	10	100GHz	04	4 channels	MU	Multiplexing	20	20dB	K	Keep	1U	19" 1RU	F	Front panel	FA	FC/APC	22	220VAC
DWDM	DWDM	20	200GHz	08	8 channels	DE	Demultiplexing	30	30dB	O	Open	ML	Modulator	B	Back panel	FP	FC/UPC	11	110VAC
DWDA	With VOA & EDFA DWDM			16	16 channels	DM	DEMUX/MUX			C	Closed	OEM	Appearance user customized			SA	SC/APC	48	-48VDC
				32	32 channels	AD	OADM									SP	SC/UPC		
																LA	LC/APC		
																LP	LC/UPC		