

Attenuator Shelves

MTA Series

The JDS Uniphase Attenuator Shelf holds up to eight attenuators and one control cassette in a low profile 19 inch (48.26 cm) rack-mounting shelf. It is ideal for controlling the optical launch conditions of DWDM system test beds and offers the lowest cost per channel for DWDM applications. It is optimized for the 1550 nm window but can be used over the 1200-1700 nm range with resolution of 0.05 dB nominal and accuracy better than ± 0.1 dB.

The system is designed to provide standard 60 dB attenuation range with good resolution for power equalization applications such as eight-channel DWDM systems. The inherent linear design and low polarization sensitivity allow the attenuators to be inserted directly at the output of an array of laser sources to stabilize or adjust optical power for each channel. Each attenuator cassette is available with a retractable connector plate to facilitate connector cleaning and maintenance and a beam block to simulate broken fiber conditions.

The shelves can be stacked to provide higher channel testing capacities, such as 16, 32, and 40 channels.

Each attenuator is controlled from the front panel keypad or by the GPIB remote interface. The commands are SCPI compatible, and LabVIEW drivers simplify remote control. The individual attenuators are etalon-free for low distortion and feature low polarization dependent loss (PDL) and return loss.



Key Features & Benefits

Holds up to eight programmable attenuator cassettes in one shelf

0.05 dB resolution

Low polarization sensitivity

One attenuator per channel

Remote control

Beam blocking switch

CE and cULus compliant



Applications

Adjust detectors in DWDM systems to their optimal dynamic range

Develop and test power equalization between eight-channel DWDM systems

Reduce or test excessive channel signal-to-noise ratios after optical amplification

Factory testing of multichannel transmission equipment

General test systems requiring multiple attenuators

Technical Specifications

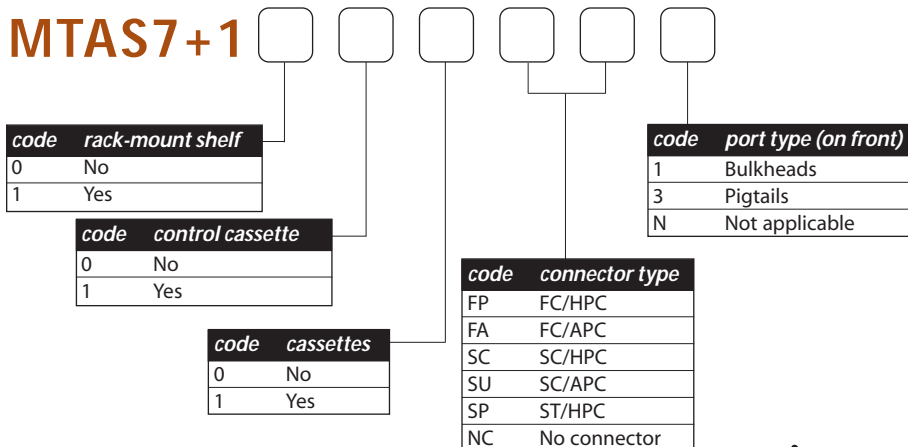
PARAMETER	SPECIFICATION
MTA300 ATTENUATOR CASSETTE	
Operating wavelength range	1200-1700 nm
Fiber type	9/125 µm
Attenuation	> 60 dB
range	0.05 dB nominal
resolution	± 0.005 dB typical, ± 0.02 dB maximum
repeatability ¹	< 6 s, 0-60 dB
change rate	± 0.05 dB typical, ± 0.1 dB maximum
accuracy	2.2 dB typical, ≤ 2.5 dB maximum
Insertion loss ^{2,3}	> 60 dB typical, > 57 dB maximum
Return loss ^{2,3}	200 mW
Maximum optical input power	2 years
Recalibration period (recommended)	≤ 0.05 dB typical, ≤ 0.10 dB maximum
Polarization dependent loss	≤ 0.03 dB typical, ≤ 0.05 dB maximum
Polarization dependent loss at 1545-1565 nm	> 90 dB
Beam block isolation	< 20 ms
Beam block speed	
MTA150 CONTROL CASSETTE	
Local control	front panel keypad and LCD display
Remote control	GPIB
Command set	SCPI compatible
MTA100 AC POWERED RACK-MOUNT SHELF	
Input voltage	100-240 V AC, 50-60 Hz
Power consumption	80 VA maximum
Dimensions W x H x D	48.3 x 8.9 x 49.7 cm
19 inch rack mounting	2U high, standard 19 inch (48.26 cm) width
Weight	approximately 16 kg
Operating temperature	0 to 40 °C
Storage temperature	- 40 to 60 °C
Humidity	maximum 95 % up to 40 °C decreasing at 5 % per °C from 40 to 60 °C

1. At constant temperature, wavelength, and polarization state after half hour warm-up.

2. Measured at 23 °C with a laser source.

3. Including two SC/APC connectors.

Sample Order: MTAS7+1001SU1



→ Ordering Information

Indicate your requirements by selecting one option from each configuration table. Print the corresponding codes in the available boxes to form your part number.