



OPTICAL PERFORMANCE SPECIFICATION, MOMENTUM CASSETTES

ECN: 03480	REV: 02	DATE: 09/19/07	SHT: 1 of 2	SPEC #: 71800022
BY: AR	CHK BY: AM	DATE: 09/19/07	APP BY: MEM	DATE: 09/20/07

1.0 SCOPE

This document contains the minimum optical performance requirements for Ortronics' Singlemode and Multimode Momentum Cassette Assemblies. The detail specification may override the requirements specified in this document.

2.0 SPECIFICATIONS AND STANDARDS REFERENCED

This document makes specific reference to the following standards. Latest publications of referenced TIA/EIA standards are used:

- TIA/EIA-455-107:** Fiber Optic test Procedure for Return Loss, Singlemode and Multimode
- TIA/EIA-526-7:** Fiber Optic test Procedure for Attenuation, Singlemode
- TIA/EIA-526-14:** Fiber Optic test Procedure for Attenuation, Multimode
- TIA/EIA-568-B.3:** Optical Fiber Cabling Components Standard, Singlemode and Multimode
- TIA/EIA-604-XX:** Optical Connector(s) Intermateability Standards

3.0 OPTICAL REQUIREMENTS

Performance tier levels are defined in Tables 1a and 1b for singlemode cassettes (by input and output connector type) and in Table 2 for multimode cassettes. In cases where multiple tier levels are defined, the cassette shall be in accordance with Tier 1 unless explicitly indicated otherwise in the detail specification.

3.1 SINGLEMODE CASSETTES

- 3.1.1 INSERTION LOSS:** Values for each fiber will not exceed values specified in the appropriate table (Table 1a or 1b) when tested in accordance with latest publications of TIA/EIA Standards 526-7 and 568-B.3. Insertion loss values and test wavelengths will appear on a data card provided with each cassette.
- 3.1.2 RETURN LOSS:** Values for each fiber will be no less than values specified in the appropriate table (Table 1a or 1b) when tested in accordance with latest publications of TIA/EIA Standards 455-107 and 568-B.3.
- 3.1.3 INTERMATEABILITY:** Will be in accordance with latest publications of EIA/TIA Standards specified in Table 3. Refer to Table 4 for connector end face finish.

3.2 MULTIMODE CASSETTES

- 3.2.1 INSERTION LOSS:** Values for each fiber will not exceed values specified in Table 2 when tested in accordance with latest publications of TIA/EIA Standards 526-14 and 568-B.3. Insertion loss values and test wavelengths will appear on a data card provided with each cassette.
- 3.2.2 RETURN LOSS:** Values for each fiber will be no less than values specified in Table 2 when tested in accordance with latest publications of TIA/EIA Standards 455-107 and 568-B.3.
- 3.2.3 INTERMATEABILITY:** Will be in accordance with latest publications of EIA/TIA Standards specified in Table 3. Refer to Table 4 for connector end face finish.

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Table 1a

SINGLEMODE CASSETTES (MTP[†]/MPO→LC/SC/ST/FC)			
TIER	INSERTION LOSS (dB)*	RETURN LOSS (dB)** MTP [†] /MPO	RETURN LOSS (dB)** LC/SC/ST/FC
1	1.05	65	55

Table 1b

SINGLEMODE CASSETTES (MTP[†]/MPO→MTRJ)			
TIER	INSERTION LOSS (dB)*	RETURN LOSS (dB)** MTP [†] /MPO	RETURN LOSS (dB)** MTRJ
1	1.25	65	40

Table 2

MULTIMODE CASSETTES (MTP[†]/MPO→LC/SC/ST/FC/MTRJ)			
TIER	INSERTION LOSS (dB)*	RETURN LOSS (dB)** MTP [†] /MPO	RETURN LOSS (dB)** LC/SC/ST/FC/MTRJ
1	1.25	20	20
2	0.75	20	20
3	0.50	20	20

(*) MAXIMUM VALUES () MINIMUM VALUES**

Table 3

INTERMATEABILITY STANDARD	
TIA/EIA SPECIFICATION	CONNECTOR TYPE
604-2	ST
604-3	SC
604-4	FC
604-5	MTP [†] /MPO
604-10	LC
604-12	MTRJ

Table 4

CONNECTOR END FACE FINISH		
CONNECTOR TYPE	SINGLEMODE	MULTIMODE
LC	UPC	PC
SC	UPC	PC
ST	UPC	PC
FC	UPC	PC
MTRJ	PC	PC
MTP [†] /MPO	APC	PC

[†]MTP is a registered trademark of US Conec Ltd.