

## Broptics FBG Optic Sensor Specification

**Model: Broptics OS1500**

Date: 5/22/02

	<b>DESCRIPTION</b>	<b>SPEC</b>
1	Center wavelength position	C-band (1530 ~ 1570nm)
2	Center wavelength tolerance@25°C	< +/-0.1 nm
3	Reflective bandwidth @-0.5dB	0.1 ~ 0.2 nm
4	Reflective bandwidth @-3dB	< 0.3 nm
5	Reflectivity	> 90%
6	Splicing loss per node	< 0.1dB
7	Side lobe suppression	> 20dB
8	Cladding mode loss (*)	< 0.2dB
9	Typical strain sensitivity	1.20 pm/ $\mu$ strain
10	Strain response linearity	< +/- 0.05 pm
11	Max strain by stretch	2,000 $\mu$ strain
12	Max strain by compress	8,000 $\mu$ strain
13	Typical temperature sensitivity	11 pm/ $^{\circ}$ C
14	Temperature response linearity	< +/- 0.5 pm
15	Operation temperature range	-10 $^{\circ}$ C ~ 100 $^{\circ}$ C
16	Packaging type	<ul style="list-style-type: none"> <li>• Athermal packaged (&lt;1pm/<math>^{\circ}</math>C)</li> <li>• Acrylate recoating (**)</li> <li>• Bare FBG</li> </ul>
17	Fiber in use	SMF-28 Single mode fiber
18	Pigtail length	cm to km

(\*) Lower cladding mode loss is available by using photo sensitivity special fiber

(\*\*) Polyimide recoating will be available in late 2002