APPENDIX A

SPECIFICATIONS

A.1 INTRODUCTION

All specifications are typical at +25 degrees C and normal supply voltages unless otherwise specified.

A.2 GENERAL

Source Type:
Singlemode coupled laser

Wavelength:
1300 and/or 1550 nm+/-5 nm depending on source option selected. When both 1300 and 1550 nm lasers are installed, output is multiplexed onto a single connector

Linewidth:
<5 nm for 1300 nm source, < 6 nm for 1550 nm source

Optical Output:
-10 dBm calibrated

Fiber Interface:
Biconic singlemode, FC singlemode (option 001)

Optical Output Stability:
+/-0.02dB (10 min @25 degrees C)

+/-0.1dB (12 hrs @25 degrees C)

Stabilization Time:
Receiver - 3 minutes from turn on
Transmitter - 15 minutes from turn on

Compatible Cables:
(Singlemode)

Jumpers:
Biconic, Intelco model 2001 FC, Intelco model 2002

Pigtail Cable:
Biconic, Intelco model 2101 FC, Intelco 2102

Adapter Cables:
FC to Biconic, Intelco model 2150, Biconic to D4, Intelco model 2151, FC to D4, Intelco model 2152, Biconic to Diamond, Intelco model 2153

A.3 RECEIVER

Dynamic Range:
+5 to -70 dBm

Accuracy:
+/-0.5 dB (0 to -60 dBm)

Resolution:
0.01 dB

Calibrations:
1300 nm, 1550 nm, and user-selectable between 1200nm and 1595 nm

Detector:
InGaAs device

Display:
Large, custom liquid crystal display LCD Autoranging measurements Also displays units and calibration wavelength. Bar-graph for tuning and adjustments

Measurements:
Loss (dB) referenced to prior measurement Loss (dBr) relative to calibrated output, Power in dBm, Power in watts

Tone:
An audio tone of a frequency proportional to the input light level. May be defeated with rear-panel switch, or by GPIB command.

A.4 USER CONNECTIONS

Optical Connectors:
One each for transmitter and receiver Biconic standard; FC optional (-001 option)

GPIB Interface:
IEEE-488 GPIB instrument bus connector standard. Full remote control of all instrument functions

Analog Output:
BNC connector provides analog voltage output in ratio to received power; output voltage range 0 to +3 Vdc

A.5 POWER REQUIREMENTS

Power Required:
33 watts, max

Power Source :
Internal fast-charge lead-acid battery pack, external ac, or external dc

External AC :

110 V +/-10%, 50-60 Hz,
@300 mA max
220 V +/-10%, 50-60 Hz,
@150 mA max

External DC
+11.5 to +15.0 V @3 A max

Line Fuses (2):
External AC Power
5 by 20 mm fuse, standard blow

160A Vac power:
1 A (Littelfuse 212001 or equivalent) 220 Vac power: .5 A (Littelfuse 212.500 or equivalent)

Duration of Battery Charge:
14 hours typical

Battery Recharge Period:
6 hours typical for full recharge; internally protected against overcharge

Battery Life:
Typically good for 500 charging cycles

A.6 PHYSICAL/ENVIRONMENTAL

Overall Dimensions:
10.00"W x 10.25"D x 3.75"H (25.4 x 26.0 x 9.53 cm)

Weight:
9 pounds (4.1 kg) typical including batteries

Operating Temperature Range:
-10 to +50 degrees C (+14 to +122 degrees F)

Storage Temperature Range:
-20 to +70 degrees C (-4 to +158 degrees F)

Relative Humidity:
20 to 80%, non-condensing