

## Laser HOOTS Product Family Overview

## Single-mode Talk Set / Light Source

### Features

Offers secure communications that is immune to electromagnetic interference

Automatic volume control

Wide receiver dynamic range of -10 to -30 dBm

Doubles as a stable, temperature compensated 1310 or 1550nm single mode laser light source with -10.0 dBm output power

Long battery life (>25 hours)

Low battery indicator

Signal level indicator

Headphone jack doubles as the power switch



### Applications

HOOTS stands for High Output Optical Talk Set. This laser based talk set also serves as a calibrated -10 dBm light source. It uses our laser light source technology to convert your voice into optical signals. The Laser HOOTS is a reliable alternative to wireless communications systems. It offers both security and electromagnetic immunity.

We designed the Laser HOOTS to be economical in order to be sold as an alternative to walkie-talkies. Optionally, they can be embedded as a permanent part of a fiber network installation. Use it during the installation for end-to-end voice communications. After installation leave it attached to a pair of dark fibers inside the fiber patch panel. This way, the Laser HOOTS can be used by communications personnel any time operations or management functions need to be done in the fiber cable closet.

There are several advantages to using a fiber talk set versus walkie talkies. The first advantage is when communications personnel are setting up voice or data optical equipment, they may give away passwords and secret net addresses over un-secure walkie-talkie channels to a nearby neighborhood of listening ears!

The second advantage is that the Laser HOOTS provides longer distance communications than cheap walkie-talkies from the local discount stores.

Finally, wireless communications is difficult when working under ground and the electrical noise and walls in many plants drown out radio signals. Fiber communications is more secure and most of all, immune to the effects of EMI/RFI.

High intensity lasers such as the ones in the Laser HOOTS light source produce intense beams of infrared energy that are invisible to the eye. **NEVER LOOK INTO A LIGHT SOURCE OR THE END OF A FIBER THAT MAY BE ENERGIZED BY A SOURCE!**

To calculate talkset distance:  $D = R / A$

where: D = talkset distance  
R = dynamic range (Laser HOOTS = 20 dB)  
A = typical fiber attenuation at specified

**Example ( = 1550nm, R = 20 dB, A = 0.5 dB/km):**  
 **$D = 20 \text{ dB} / (0.5 \text{ dB/km}) = 40 \text{ km}$**

<b>Receiver Dynamic Range</b>	-10 to -30 dBm
<b>Source Power</b>	-10 dBm into 9um
<b>Initial Accuracy</b>	+/- .10dB @ 25 C
<b>NIST traceable calibrated wavelengths</b>	1310nm or 1550nm
<b>Center Wavelength</b>	1310nm +/- 30nm or 1550nm +/-30nm
<b>Spectral Width</b>	2nm @ 1310nm or 2nm @ 1550nm
<b>Dimensions</b>	4.94 x 2.75 x 1.28 in

Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Product manuals come in PDF format on CD. Adobe Acrobat Reader™ is required to view these documents.



Carrying cases and patch cables are available for an additional charge. Call 262-473-0643 for more information.