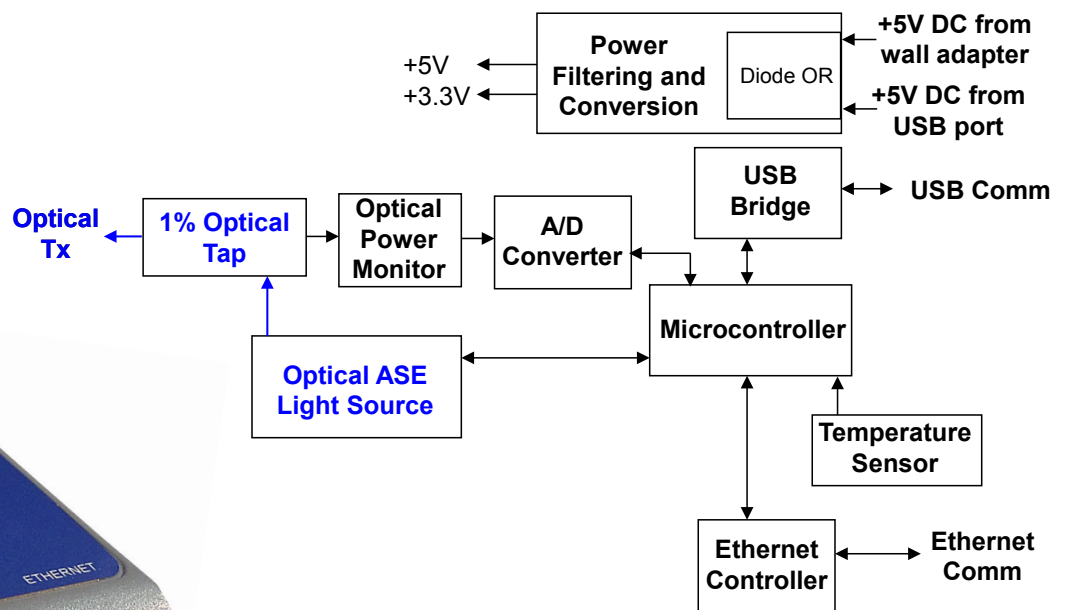


# ASE-1019

## +19 dBm ASE Light Source

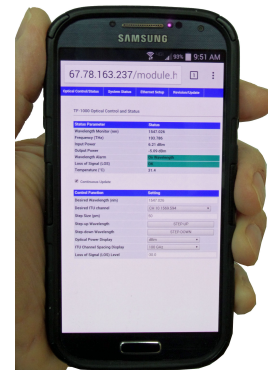
### Key Features

- ASE light source in C-Band
- Typical +19 dBm output power
- ACC and APC mode operation
- User friendly USB GUI or browser based Ethernet GUI
- Optical power monitoring of output
- 10/100BaseT Ethernet interface
- Small footprint of 6" x 2.5" x 1.25"
- Powered by AC/DC adapter



### Applications

- Wide dynamic range optical component testing
- Telecom systems compliance tests
- Optical link characterization
- Remote (Ethernet) controlled ASE source



## Overview

The ASE-1019 is an Amplified Spontaneous Emission (ASE) light source with a typical output power of +19 dBm. It is one of the ASE-1000 series of light sources which are designed as user-friendly, compact, portable, cost-effective solutions for use in a variety of applications. These light sources have excellent output power stability and a minimum spectral width of 50 nm at 20 dB down.

The output optical power level is constantly monitored and the drive current adjusted appropriately to achieve a high level of power stability. An onboard temperature sensor allows the power monitoring circuitry to be calibrated during production test to provide measurement resolution of 0.01 dB and linearity (relative accuracy) of 0.1 over the operating temperature range of 0°C to 40°C.

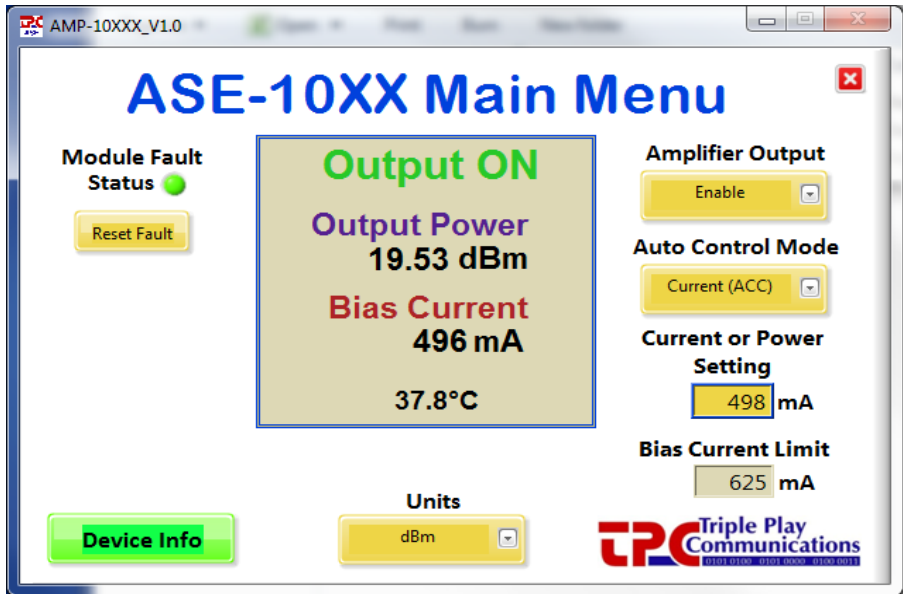
An AC/DC adapter is provided to power the ASE-1019 and its 10/100BaseT Ethernet interface is used to allow the module to be controlled via Static or Dynamic IP addressing. In this configuration a standard HTML browser (e.g. Firefox, Chrome, Internet Explorer) provides the user interface (see example window on right) and the various control and status HTML pages are integrated into the microcontroller's firmware.

Optical Control/Status	System Status	Ethernet Setup	Revision/Update														
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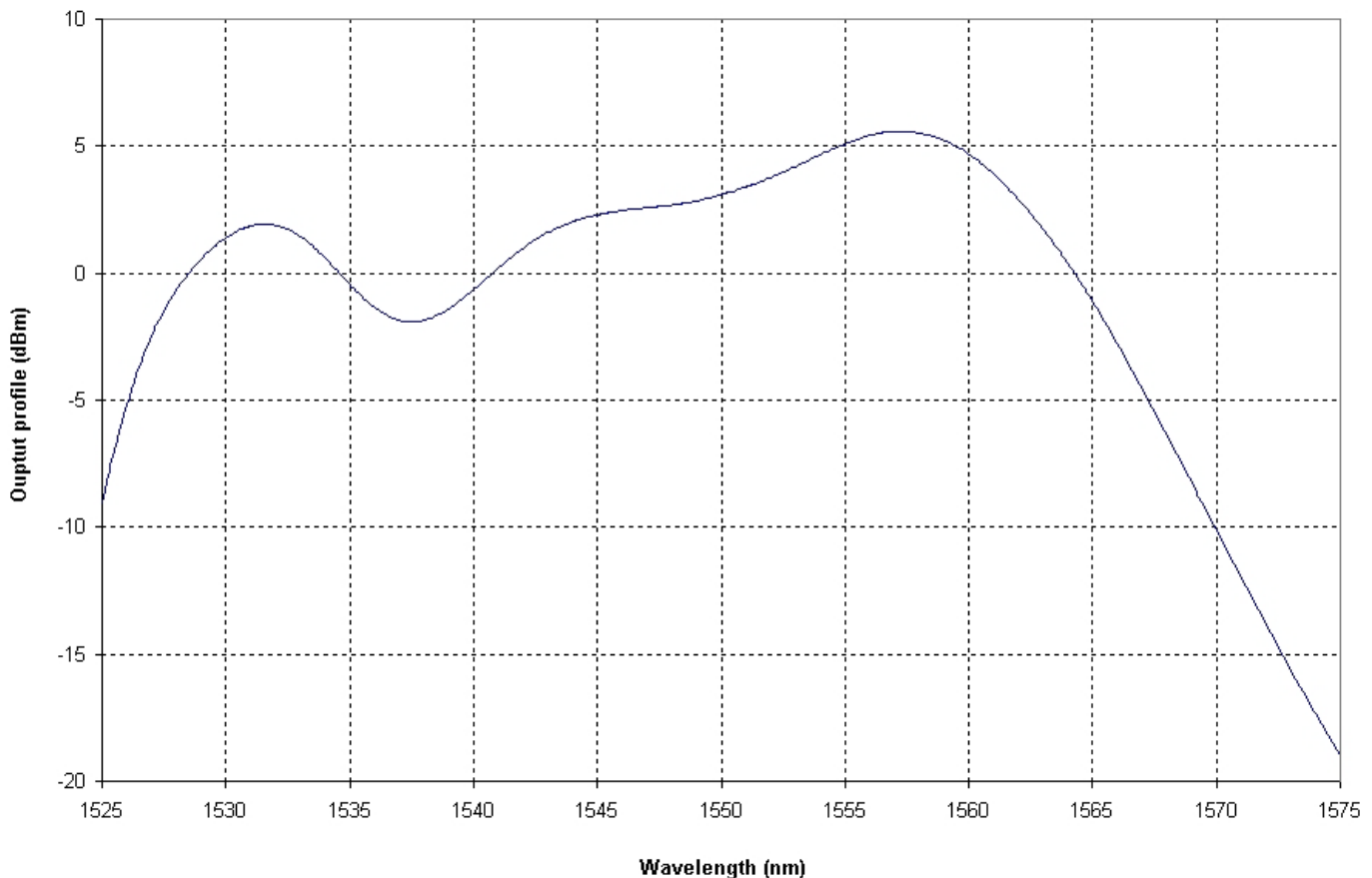
Additionally, any iPhone or Android device can provide the full user interface as shown below using the standard Ethernet connection and phone's browser. The module also allows SNMP control via this Ethernet interface as an optional feature.



The ASE-1019 can also be connected directly to a Windows based computer running the USB graphical user interface (GUI) software. The USB GUI (see example window at right) is also able to provide the same complete control and status of the module as the browser based GUI.



The ASE output spectrum shown below, with no gain flattening filter, shows the module's typical output power curve at 25°C over the entire wavelength range. A gain flattening filter can be added to this module so please contact TPC if gain flattening is required.



**ASE-1019 Typical Output Spectrum at 25°C Over Entire Wavelength Range**

### ASE Source Specifications

Parameter	Minimum	Typical	Maximum
Wavelength Range	1528 nm		1564 nm
Total Output Power	18.2 dBm	19 dBm	
Spectral Width at 5.5 dB	36 nm		
Spectral Width at 20 dB		50 nm	
Output Return Loss	35 dB		
Output Optical Isolation	40 dB		
Power Stability after 60 minute warm-up	-0.1 dB		+0.1 dB

### Optical Power Meter Specifications

Parameter	Minimum	Typical	Maximum
Optical Output Dynamic Measurement Range	+5 dBm		+25 dBm
Resolution	±0.01 dB		
Relative Accuracy/Linearity	±0.1 dB		
Absolute Accuracy	±1.0 dB		

### Electrical, Mechanical, and Environmental Specifications

Parameter	Minimum	Typical	Maximum
Power Supply Voltage		+5V	
Power Supply Interface		AC/DC Adapter	
Operating Current		740 mA	800 mA
Ethernet Communications Interface <sup>1</sup>		10/100BaseT	
USB Communications Interface		USB 2.0	
Ethernet User Interface (ex. Chrome, Firefox, IE)		HTML Browser	
USB User Platform		Windows GUI	
Optical Connector (others available)		FC, LC	
Operating Temperature Range	0 °C		35 °C
Storage Temperature Range	-40 °C		85 °C
Dimensions		6" x 2.5" x 1.25"	

Note 1: The software Interface Control Document can be provided so a custom control/status interface can be developed if desired

### Part Numbers for Ordering

Description	Part Number
ASE-1019 ASE Light Source	ASE-1019-□□□□
Includes Gain Flattening Filter: <b>G</b> , No Gain Flattening Filter: <b>N</b>	
C band: <b>C</b>	
USB and Ethernet control/status interface: <b>E</b>	
Data logging: <b>D</b> , No Data logging: <b>N</b>	
LC/PC: <b>L</b> , FC/UPC: <b>U</b> , FC/APC: <b>A</b>	