

1550 External Optical Transmitter

HF200-3615E Series

User's Manual

1. Overview

HF200-3615E series External Modulated Optical Transmitter is the preferred product of broadband transmission system and large capacity CATV optical transmission system network. Mainly using in optical modulation, optical insertion, WDM, the network upgrade and expansion of the large 1550nm optical transmission system, that is a core device to achieve triple play, FTTX, 1550nm RFTV broadcast network system.

Features

- Finely differentiated specification satisfy different network requirement, single/dual output and 3~10dBm output power for choice.
- Using narrow linewidth, low-noise and imported DFB laser as light source, the high linearity LiNbO₃ is as external signal modulator.
- Perfect pre-distortion circuit ensures the best CTB and CSO when the CNR is in high standard.
- Perfect SBS suppress circuit and adjustable SBS, suitable for different transmission distance of network requirement.
- AGC control can let different RF input level keep stable signals output.
- Internal dual power which can be changed automatically.
- Automatically shell temperature control, intelligent fan. It works when the temp reach 32°C.
- The LED displays, the function of laser monitoring, parameter display, fault warning, net management and so on. Once the working parameter of the laser goes out of the fixed value of the software, the machine will warn.
- The transmitter provides standard RJ 45 port for remote control, support SNMP and adjust the AGC, SBS and OMI.
- The transmitter provides RS232 standard interface for the local network management and monitoring, and it also can let user change the panel display models and specifications.

2. Installation

2.1 Before Installation

2.1.1 Please examine the machine to see if there is distinct damage.

2.1.2 Please examine if the accessories is complete and the quality cards is here,if isn't complete please contact the seller.

2.2 Installation

2.2.1 Please keep a space about 1.75 inches(4.5cm) between machines for ventilation.

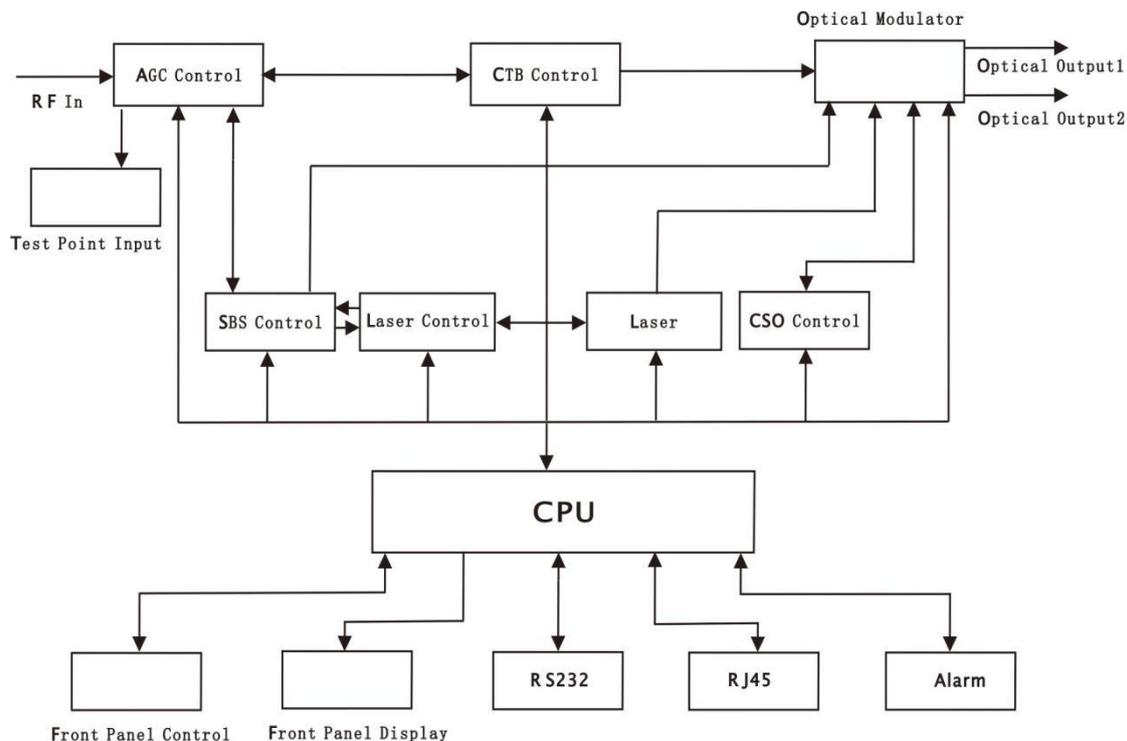
2.2.2 Please make sure: the socket works very well and earthed; The impedance $\leq 4\Omega$; 220V power with three cables,the grounding cable should be in the middle.Unfitted grounding will damage the device or influence the signal quality.

2.2.3 Please makes sure the key is turned to OFF and before the power is connected.

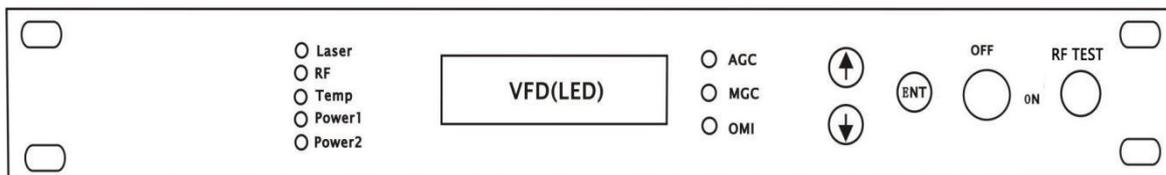
2.2.4 Please keep the interface of the fiber clean before connecting the fiber. The connector could choose FC/APC or SC/APC.

3. Setting and Operation

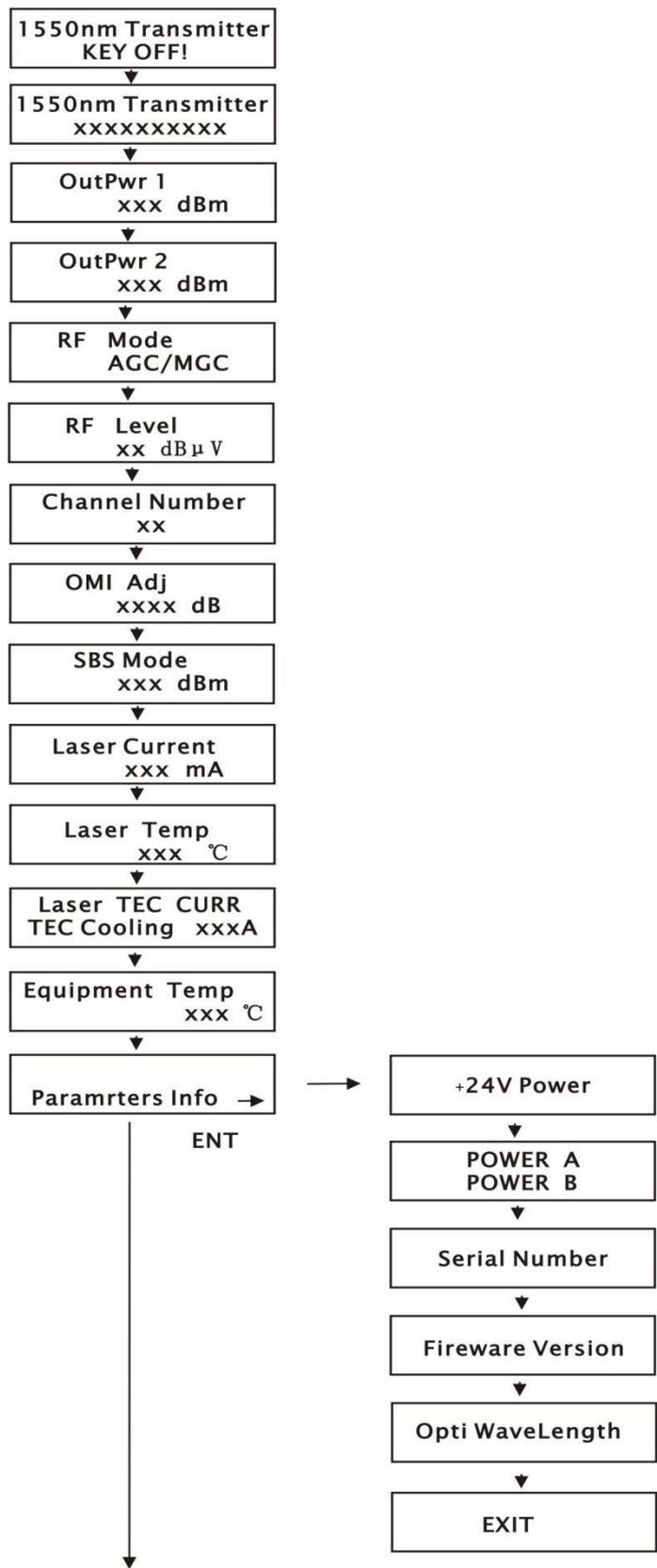
3.1 Diagram

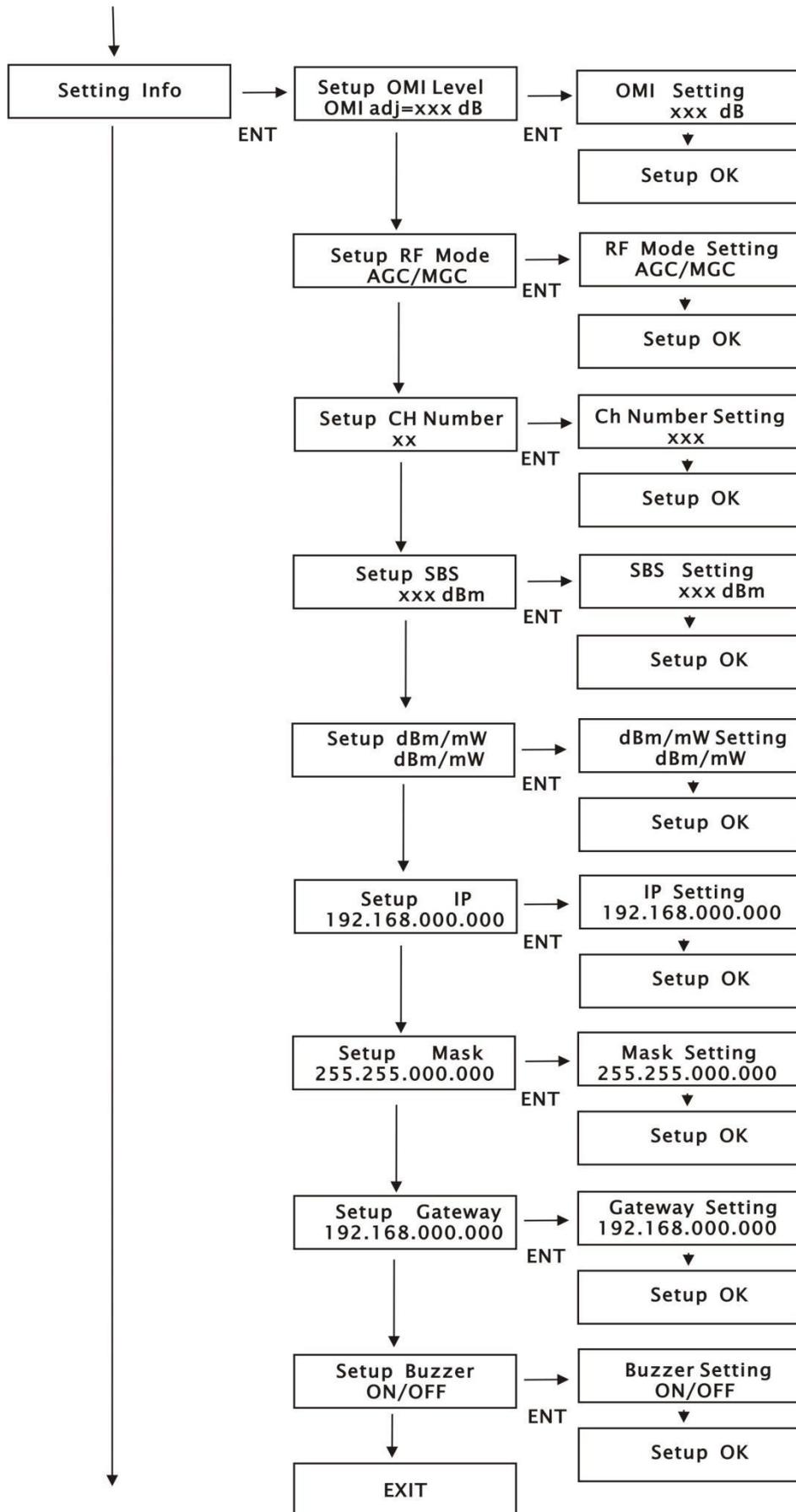


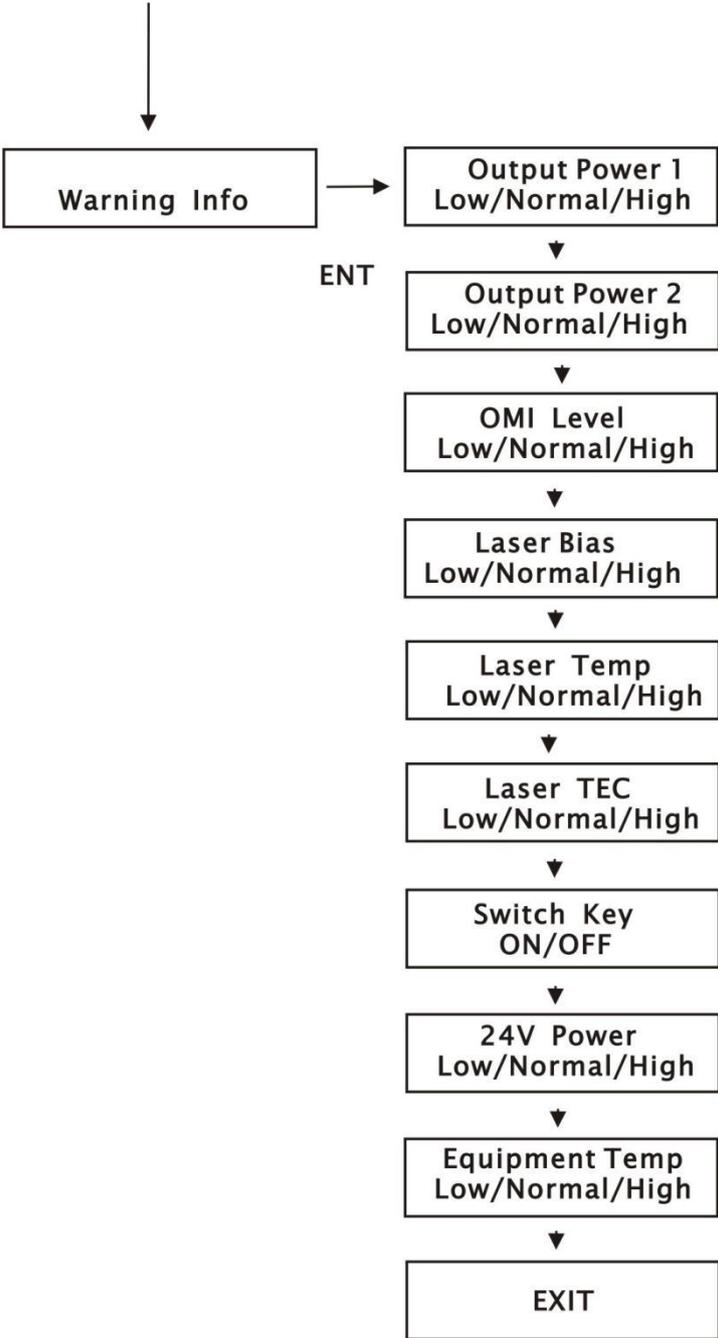
3.2 Front Panel Operation Guide



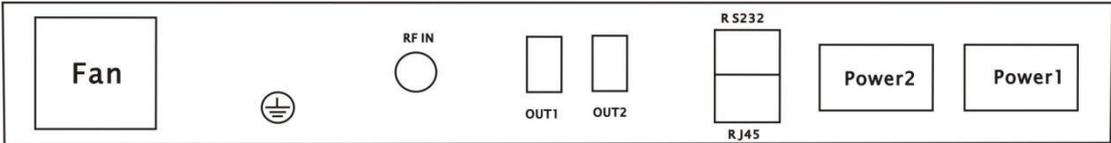
3.4 Front Panel Operation







3.4 Rear Panel



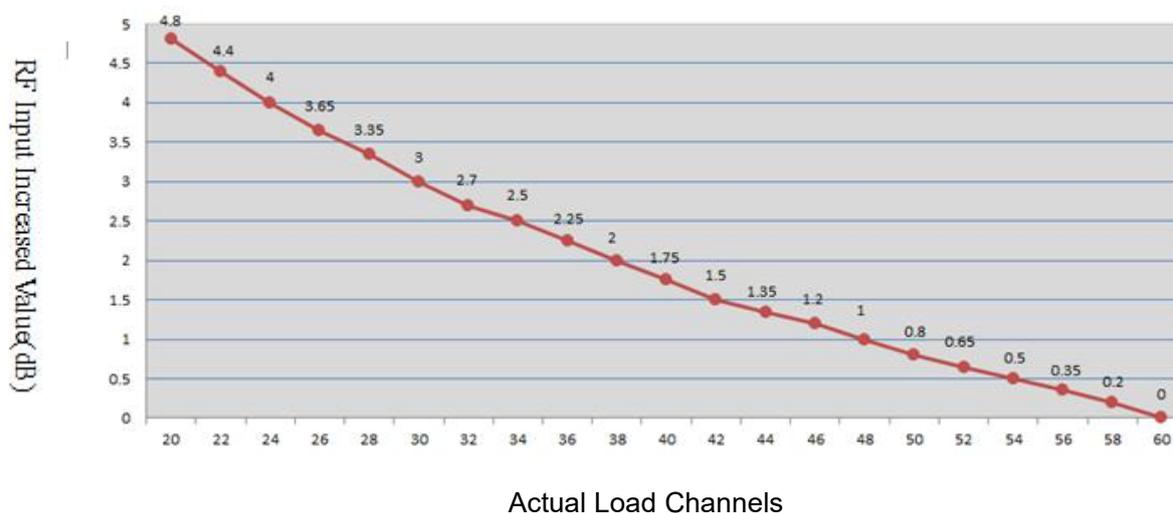
3.5 OMI Adjust

3.5.1 The require on RF input level

3.5.1.1 The standard RF input 80 (+5/-5) dBuV when there is standard 59 channels, the advised RF steps between channels should controlled within 0.5dB.

Attention: The above advised RF input is based on 59 channels, in the actual case, the load number of channels may change, accordingly, the RF input of each channel will change, please see the following picture. When our transmitter keep the change of RF input within 5dB, the optical modulation index will keep fixed.

RF Input Increased Value/Actual Load Channels



3.5.1.2 AGC range: 75dB μ V~85dB μ V

3.5.2 AGC/MGC condition

3.5.2.1 The default condition is AGC (the best condition).

3.5.2.2 The user could adjust the OMI according to the networks.

3.5.2.3 After increasing the value of OMI, then CNR will be higher, but CTB and CSO will be lower. If reduce the value of OMI, the CNR will be lower, CTB and CSO higher.

3.6 SBS Adjust Steps

The default value of the SBS is 16.5dBm , the user can adjust it according to the request of the net.

4、 Notice

4.1 The main component of the amplifier laser is sensitive to the static electricity, so please keep the amplifier away from the static electricity. Furthermore, please keep it away from caustic things and keep the amplifier in temperature between -25°C and 50°C.

4.2 External optical transmission is a very sophisticated device,except the splice of the fiber connector,all problems must be handled by original engineering technician.

4.3 Please don't block up the heating dispersion hole and keep the machine aired.

4.4 Please use absolute alcohol to wash the all the connects and the test point of optical meter,don't use the medical alcohol.At the same time,the power supply is off.

5、 Warranty Terms

5.1 HF200-3615E Series optical amplifiers are covered by ONE year Limited Warranty, which starts from the initial date of your purchase. We provide its customer whole-life technical supports.

5.2 Please don't unfold the machine or remove any parts of the machine under warranty.

5.3 The unit fails to perform because of user faults,like the accidental and improper using,storage or assembly.

5.4 Please send the product to us for repairing if product do not reach the quality requirement.

5.5 If warranty is expired, and you need require,the user has to pay for the material.