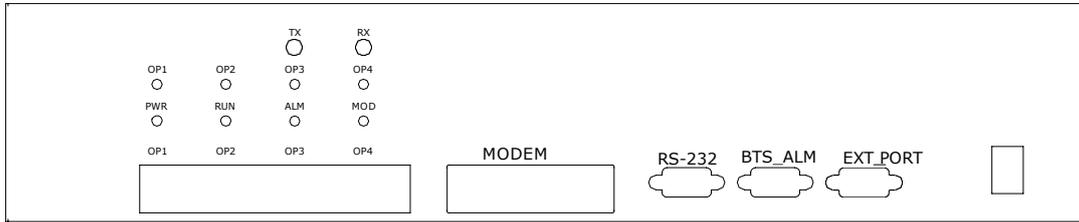


Preliminary Technical Specifications

System Specifications		
System		GSM1800, WCDMA2100
Optical Fiber		Single Mode
Optical Wavelength	nm	1310, 1550 + WDM
Optical Link Frequency	MHz	800 – 2200
Max. Optical Path Loss	dB	6.5
Optical AGC	dB	0 – 6.5
Maximum Remote Unit per Master Unit		4

Master Unit (MU)		GSM1800	WCDMA2100
Optical Specifications			
Optical Wavelength	nm	1310 + WDM	
Optical Output Power	dB m	-1 – 2	
Optical Return Loss	dB	> 50	
Optical Link Gain	dB	0	
Electrical Specifications			
Uplink Output Power	dB m	-10	
Maximum Gain	Uplink	-8	
	Downlink	-8	
Uplink ATT Adjustable Range (1dB step)	dB	0 – 10	
Absolute Max. Input RF Power	dB m	10	
Input Coupling Signal		1x Dual-band DL + 1x Dual-band UL or 1x GSM1800 DL/UL+1x WCDMA2100 DL/UL	
Mechanical Specifications			
Dimensions, H x W x D	Master Unit	mm	482 x 360 x 88 (19" 2U)
	Combiner Unit		482 x 360 x 44 (19" 1U)
Weight (approx.)	Master Unit	kg	8
	Combiner Unit		5
Power Supply	AC110/220	VAC	85 – 264/47 – 63Hz
	DC-48	VD C	-76 – -38
Power Consumption (approx.)	W	35	
MCU Battery Backup Time (approx.)	hr	0.5	
Fiber Connectors		FC - APC	
RF Connectors		SMA – Female	
Operating Temperature	°C	-20 to +40	
Operating Humidity	%	≤ 85	
Environmental Class		Indoor	
MTBF	hr	> 50,000	

Note: Typical specification tested at room temperature, in FET frequency band



Identifier	Functional Description
TX	SMA connector.
RX	SMA connector.
OP1-OP4	Uplink/downlink optical interface
FUSE	Protect the equipment in case of power failure
Power ²	A power supply cable for power supply

1.1 OMT

The equipment can be monitored and controlled by OMT software running on a local PC with local commissioning cable, remote connection to the equipment.

- OMT software running on a local PC with serial connection to the equipment.
- OMC (optional) software with remote connection to the equipment.

This chapter is to introduce how to apply local and remote connection to OMT for the first installation, for the detailed OMT information, please refer to OMT user manual and other references.

Notice: The OMC software with remote connection to the equipment is optional for customers.

1.1.1 LOCAL AND REMOTE CONNECTIONS TO OMT

After installing OMT software on the PC, connection to the equipment can be done locally or remotely. Double click the OMT explorer icon, the OMT Explorer main screen window will appear.

1.1.2 LOCAL CONNECTION TO OMT

After database configuration is done successfully, the following window will pop up and select [Local connection via RS-232] for local connection.



Figure 1: Connection Type

Select the desired communication port and click “OK”, it will enter into the main window of OMT.

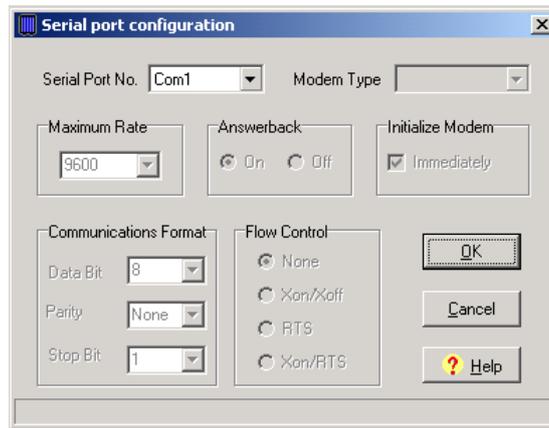


Figure 2: Serial Port Configuration

1.1.3 REMOTE CONNECTION TO OMT

If remote connection is needed, users can select [Remote connection via modem] in connection type window. Select desired serial port and click “OK” in [Serial Port Configuration] window to go to OMT main window. Click “connect” and the [Remote Connection] window will show up.

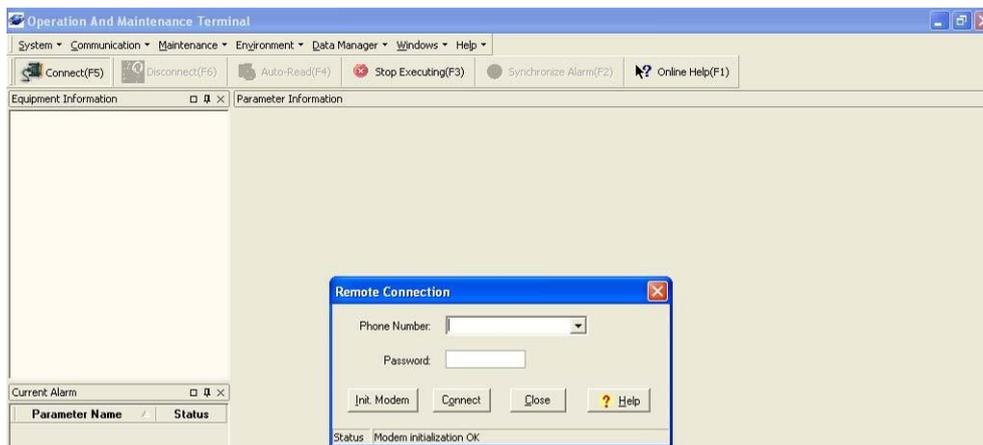


Figure 3: Remote Connection

Config: Enter the correct phone number (Users don't have to enter the password) and click “connect”. After the modem is initialized, it will be connected remotely.

1.1.4 OMT CONFIGURATION

After entering the OMT main screen, click the “Connect” button on the toolbar, to connect the equipment to the OMT. Successful connection will be indicated by a message “Online OK” and equipment parameters can be read and/or set.

Users can configure the parameters, and then set the parameters according to desired coverage level and interference to other BTS signals.

OMT parameters include: Common Information, RF Information, Alarm Information, and Properties Information.

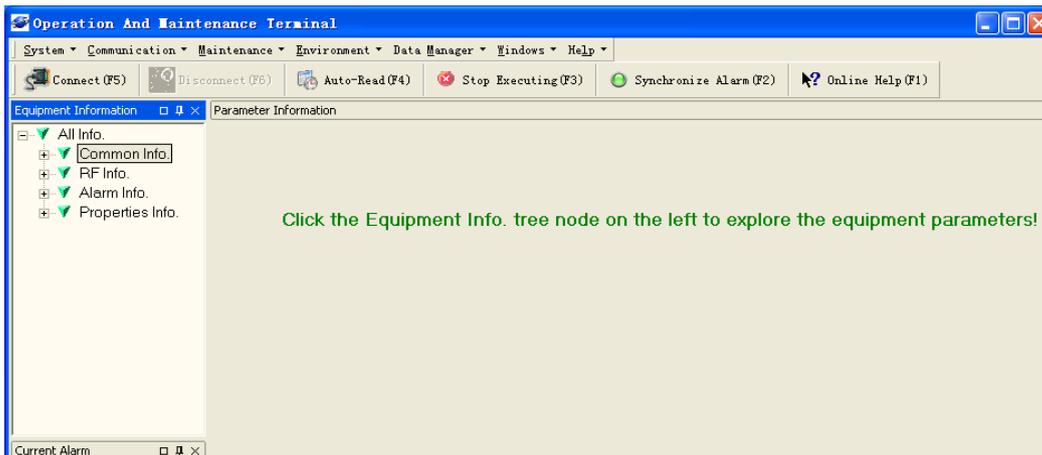


Figure 4: OMT Main Window

1.1.5 SYSTEM INFO

Click on [System Info.] within Equipment Information, system information will be displayed in the right interface of the OMT screen. In the interface the site ID of MU is described and the currently accessed unit is indicated.

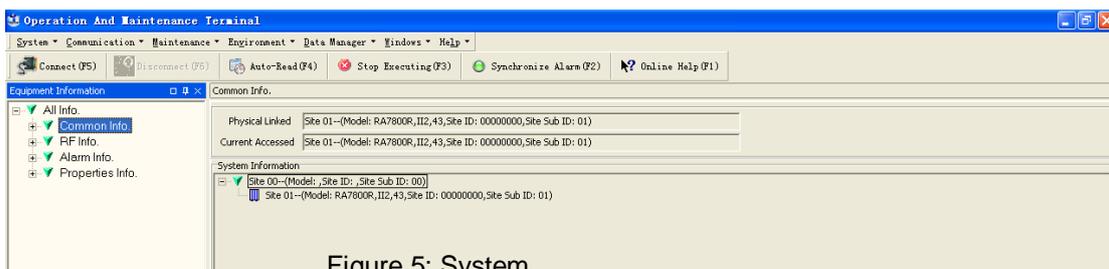


Figure 5: System

Information There are two methods to switch from different sites.

- To switch to the MU or other sites, customer can right click on the message indicating the not accessed unit. Select [Switch] in the pop-up menu, RU can be successfully switched to MU or other sites.
- To switch to the MU or other sites, customer can choose MU or other site which is under monitoring, then click [Switch] on the bottom to switch to MU or other sites.

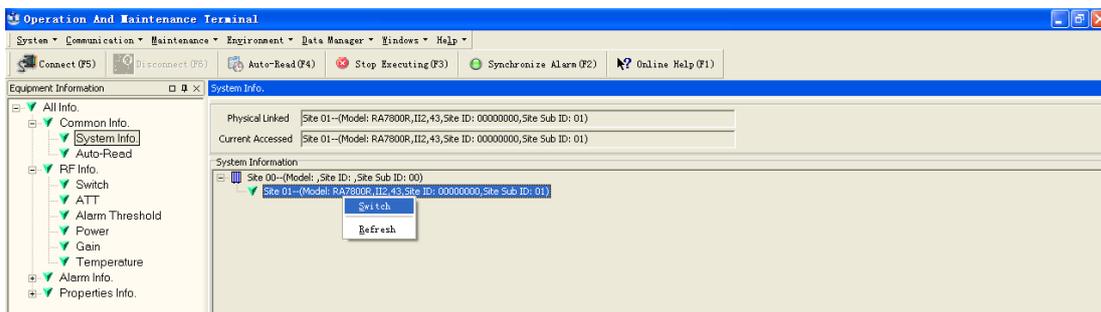


Figure 6: Switch between MU and RU

Config:

Select the required state in setting columns of RF information window for RF switch, then press [Enter] or [Config] button to finish the configuration operation.

1.1.6 ATT



Figure 7: MU ATT

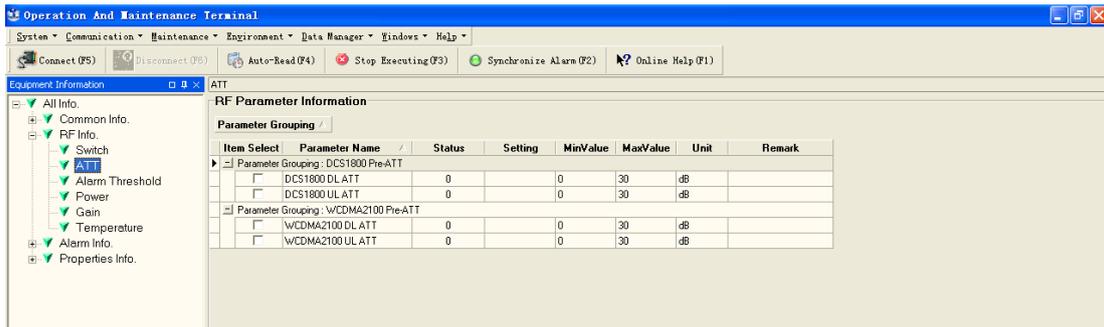


Figure 8: RU ATT

Config:

Select the required value in setting columns of RF information window for ATT, and press [Enter] or [Config] button to finish the configuration operation.

1.1.7 RF PARAMETER

It is recommended to configure the following RF parameters for the first installation.

1.1.8 SWITCH

Switch is to enable/disable power for internal modules. When user checks and sets non-RF parameters, such as checking physical antenna connection, switching off will disable equipment power temporarily to protect PA in operation.

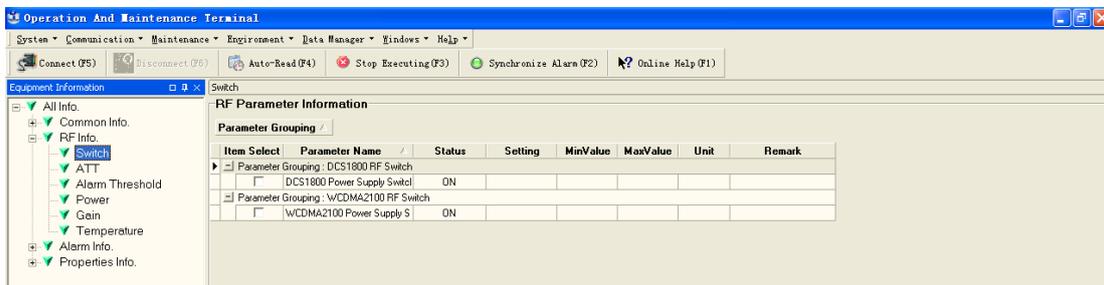


Figure 9: RU Switch