



Mini EDFA Frame Command

1. Setup of serial port

Baud rate	Data bit	Stop bit	Checksum	Flow control
9600	8 bits	1 bit	None	none

2. Data format

All communications are in Master-slave reply mode. Host computer acts as Master and sends command. EDFA as slave replies it. The data format is HEX and in little-endian mode.

Master frame command:

Frame Head	CMD ID	Data length	Address	Data	Checksum
5 bytes	1 byte	1 byte	1 byte	N bytes	1 byte

Frame Head: 'minic'

Slave frame command:

Frame Head	CMD ID	Data length	Data	Checksum
5 bytes	1 byte	1 byte	N bytes	1 byte

Frame Head: 'minic'

3. CMD ID

#	CMD ID	Description
1	0x00	Get device status
2	0x70	Set mode (APC/ACC) & parameters
3	0x71	Get device settings
4	0x52	Save & lock settings

4. CMDs

4.1 0x00 Get device status

Master → Slave

Frame Head	CMD ID	Data length	Checksum
5 bytes	1 byte	1 byte	1 byte
minic	0x00	0	CMD ID + Data length

Slave → Master

Frame Head	CMD ID	Data length	Data	Checksum
5 bytes	1 byte	1 byte	61 bytes	1 byte
minic	0x00	61	data[0], data[1], ..., data[60]	CMD ID + Data length + Data

Data description

Name	Unit	Data	Note
Pump current	0.1mA	data[0], data[1]	Signed short int, little-endianness (data[k+1]<<8 data[k])
Module temp.	0.1°C	data[6], data[7]	
Output power	0.1dBm	data[20], data[21]	

4.2 0x70 Set mode & related parameters

Master → Slave

Frame Head	CMD ID	Data length	Address	Data	Checksum
5 bytes	1 byte	1 byte	1 byte	2 bytes	1 byte
minic	0x70	3	m	data[0], data[1]	CMD ID + Data length + address + Data

Data description

Name	Address (m)	Unit	Data	Checksum
Mode	0		Signed short int, little-endianness (data[1]<<8 data[0])	0: APC 1: ACC
ACC current	2	mA		
APC power	3	0.1dBm		

Example

- Set APC mode
6D 69 6E 69 63 70 03 00 00 00 73
- Set output power as 18dBm
6D 69 6E 69 63 70 03 03 B4 00 2A
Details:
6D 69 6E 69 63 minic
70 CMD ID
03 Data length
03 address
B4 00 180: 18dBm (00 << 8 | B4)
2A checksum

4.3 0x71 Get mode & related parameters

Master → Slave

Frame Head	CMD ID	Data length	Checksum
5 bytes	1 byte	1 byte	1 byte
minic	0x71	0	CMD ID + Data length

Slave → Master

Frame Head	CMD ID	Data length	Data	Checksum
5 bytes	1 byte	1 byte	16 bytes	1 byte
minic	0x71	16	data[0], data[1], ..., data[15]	CMD ID + Data length + Data

Data details:

Name	Unit	Data	Note
Mode		data[0], data[1]	Signed short int, little-endianness (data[k+1]<<8 data[k])
ACC current	mA	data[4], data[5]	
APC power	0.1dBm	data[6], data[7]	

4.4 Save & lock settings

Frame Head	CMD ID	Data length	Checksum
5 bytes	1 byte	1 byte	1 byte
minic	0x52	0	CMD ID + Data length

Example:

6D 69 6E 69 63 52 00 52