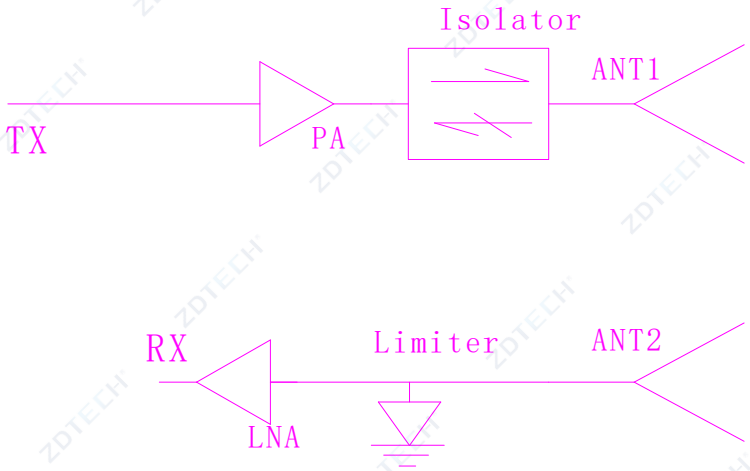
1.2-1.6GHz, 3KW, L Band Transmitter

Parameter

Frequency	1.2-1.6GHz
Saturation Power	3KW
Duty	10%
Pulse Width	100us
ATN G	>10dB
TX G	>60dB
Nf	<3dB
RX G	>30dB
RX P-1	>20dBm
RX Burnout Power	>1KW
Power Supply	AC220V/50Hz
Outline Drawing	482.6×503.0×133.4mm
Weight	20kg

Transmitter control signal AM controls the module at transmitting condition or receiving condition. When AM is at High Level, the module is at Transmitting condition, the transmitting power supply is on, the receiving power supply is off; the transmitting channel starts to operate; When AM is at Low Level, the transmitting power supply is off. The receiving power supply is on, the receiving channel starts to operate.

Schematic Diagram



RF Connector

Connector	Interface Mode	Remark
TX RFIN	SMA-K	Transmission Signal Input
TX RFOUT	L29	Transmission Signal Output
RX RFIN	L29	Receiving Signal Input
RX RFOUT	SMA-K	Receiving Signal Output

The power supply and control interfaces of the modules are respectively Y50DX1203ZJ10NI40 and Y50EX0809ZJ10NI40, with pin designations shown in Tables 1 and 2.

Table1 Pin designations of the Y50DX1203ZJ10NI40 interface

Number	Pin No.	Definition
1	1	Live Wire (AC220V)
2	2	Neutral Wire (AC220V)
3	3	GND

Table2 Pin designations of the Y50EX0809ZJ10NI40 interface

Number	Definition	Remark
A	AM+	Transmitter control signal, RS422
B	AM-	
C	GND	/
D	T+	TX signal，RS422
E	T-	
F	GND	/
G	R+	RX signal，RS422
H	R-	
J	GND	/

Communication Protocol

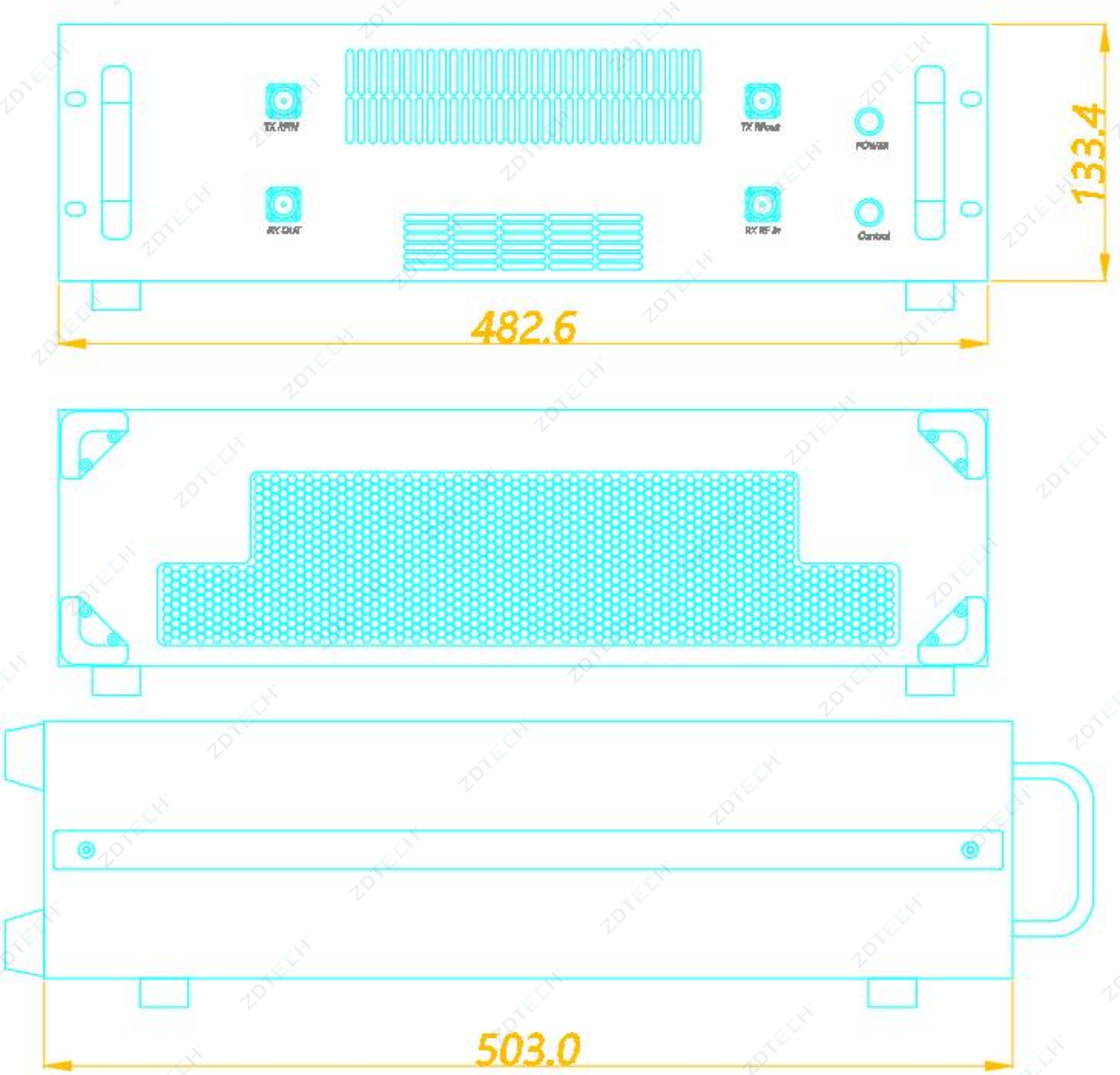
Baud rate 115200

Sent down：

System to Transmitter			
byte#1	Header	3 Byte	0 x 54
byte#2			0 x 58
byte#3			0 x 66
byte#4	State	1 byte	0 x 00: work state ; 0 x 33: status inquiry (byte#5=00)
byte#5	POWER	1 byte	0 x 00: POWER OFF; 0 x 01: POWER ON;
byte#6	/	1 byte	Xor (byte#1 ~ byte#5)

Postback data：

System to Transmitter			
byte#1	Header	3 Byte	0 x 53
byte#2			0 x 58
byte#3			0 x 55
byte#4	Temp	1 byte	-128 ~ +127 °C
byte#5	Stimulate	1 byte	0x 01: The input signal is normal; 0x 00: Abnormal input signal;
byte#6	Output power	1 byte	0x 01: Output power is normal; 0x 00: Abnormal output power;
byte#7	/	1 byte	Xor (byte#1 ~ byte#6)


TX RFIN
TX RFout
POWER
RX RF out
RX RF in
Control
133.4
482.6
503.0