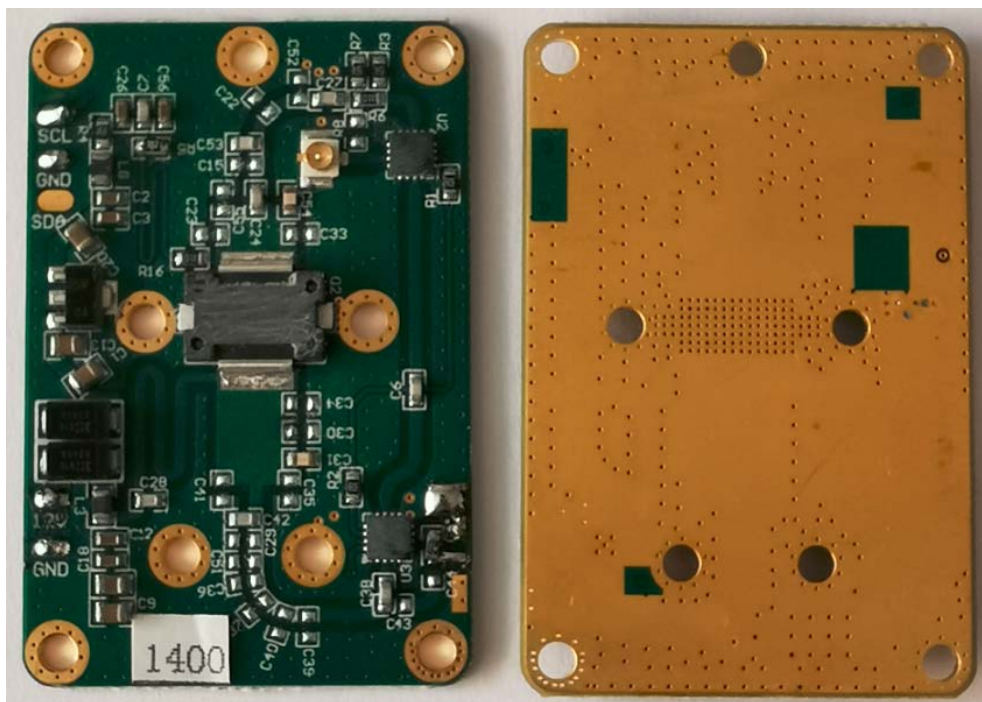


PA1400/PA800 for DLM/DLB Module

2W RF Linear Power Amplifier for Sihid DLM(or DLB) module



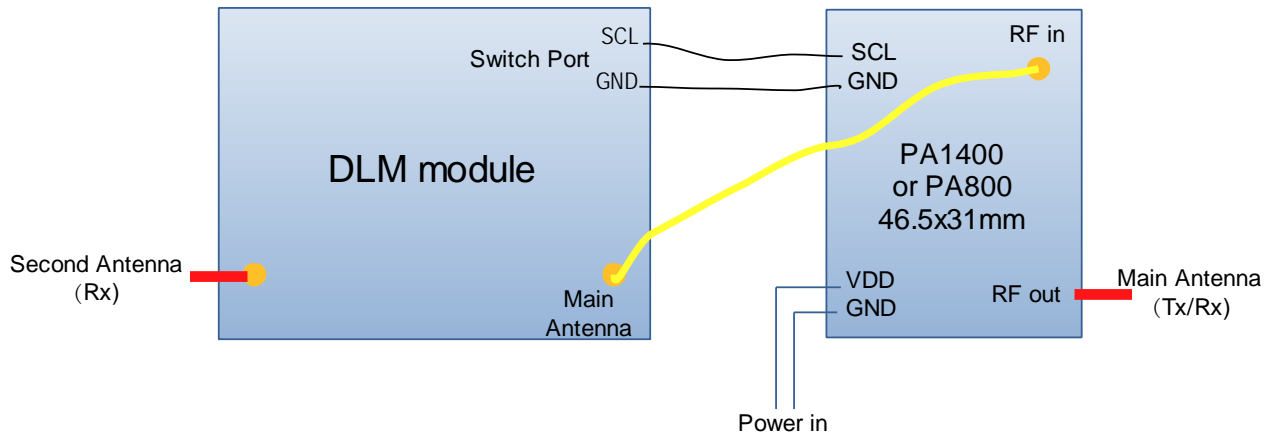
Front

Back

Features:

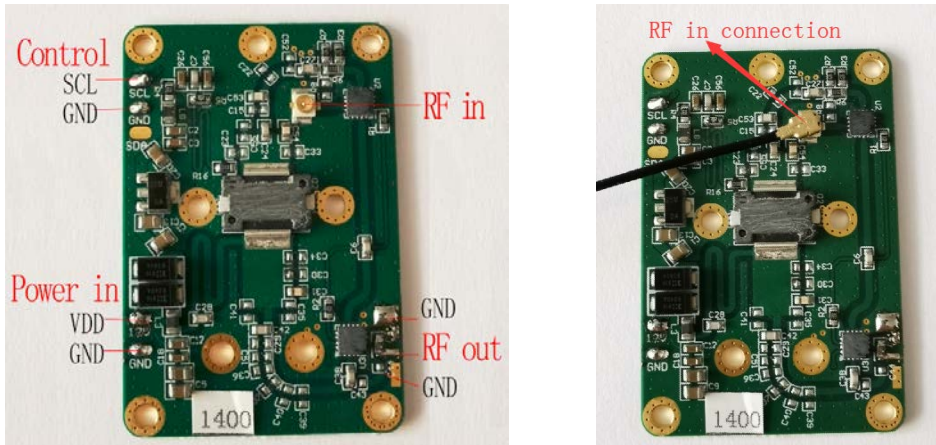
- Frequency band: 1425MHz-1455MHz(PA1400) , 800MHz-830MHz(PA800)
- RF in: DLM(or DLB) module RF out(25 ± 2 dBm)
- RF out power: 2W(33dBm)
- TX Gain:
 - PA1400:11dB, when used with DLM(or DLB) Module, set up the maximum RF power of DLM as 22~24 dBm, then the RF out power will be 33~35dbm.
 - PA800: 13dB, when used with DLM(or DLB) Module, set up the maximum RF power of DLM as 20~22 dBm, then the RF out power will be 33~35dbm.
- Power in: DC12V~16V
- Power consumption: <6W average
- PCBA size: 46.5*31mm, thickness of PCB: 1.2mm

Working together with DLM(or DLB) Module:



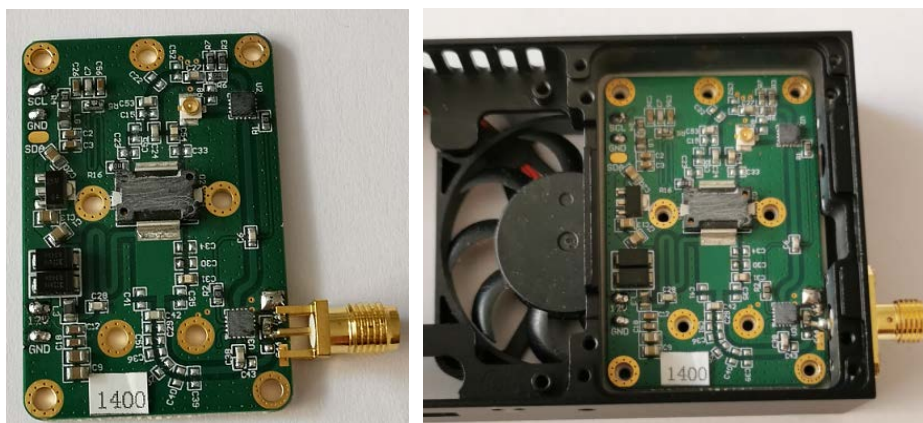
RF in

IPEX connector for connection with main antenna of DLM(or DLB) module.



RF out

Bonding pad, should be soldered to an antenna connector.



Control

Two bonding pads, should be soldered to connect with DLM(or DLB) Switch signal pad(SCL and GND).

Control signal	function	Connection to DLM
SCL	The input high(1.8V to 3.3V) will drive the amplifier and work in Tx mode. The input low will enable the PA	SCL signal of Switch interface

	module to work in Rx mode.	
GND	Gnd.	GND signal of Switch interface

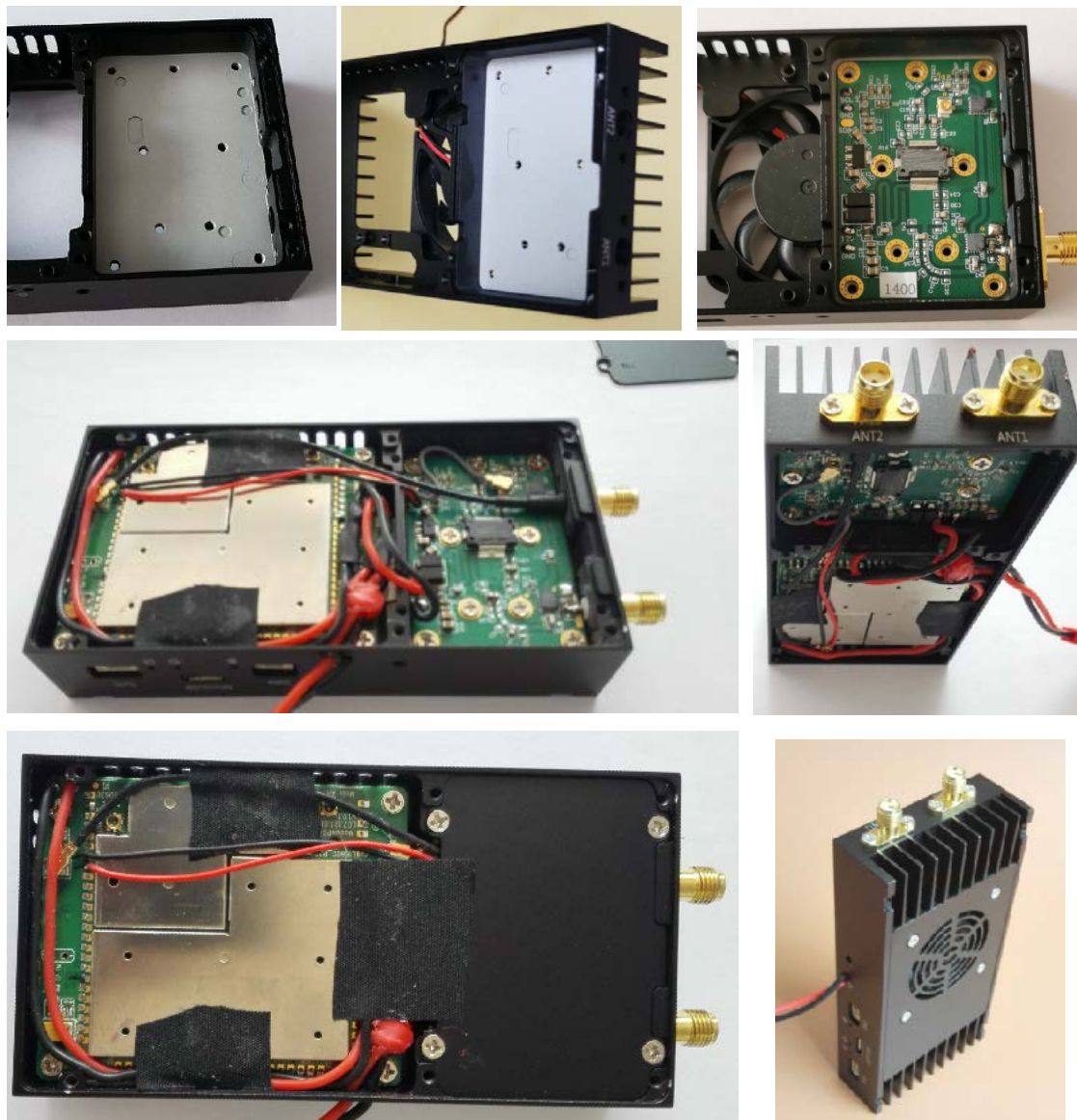
Power in

Two bonding pads, should be soldered to connect with power VDD and GND.

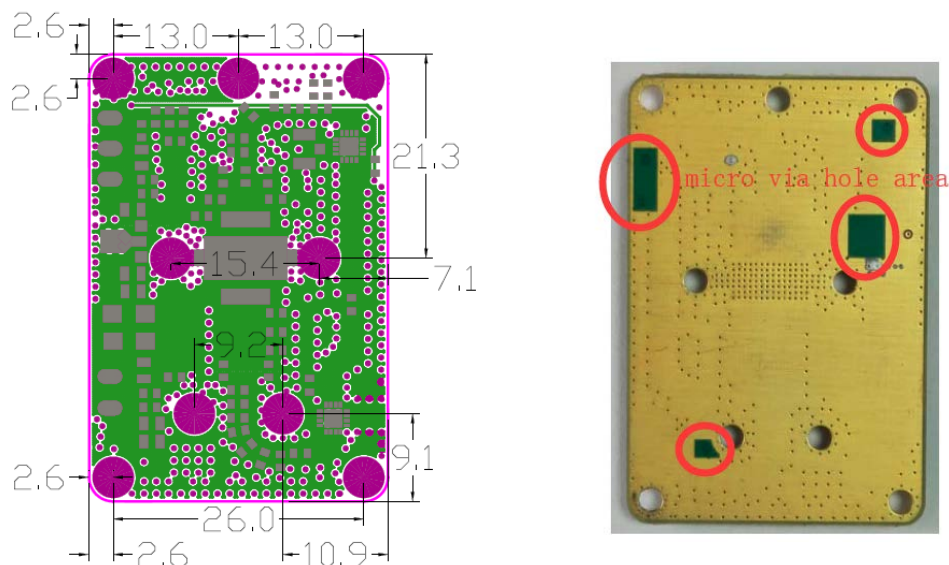
Housing case and assemble

SiHid PA1400/PA800 is just an OEM PCBA module. When you use this PA to work with DLM(or DLB) module, you should make metal housing case for your device, and a separated chamber must be designed for PA board. And also, it should keep at least 6mm space between the PA board and the upper cover. The back side of the PA board should be assembled to the metal directly and tightly to help heat dissipation and enable electrical grounding connection. For optimal performance it is important to include adequate heat dissipation strategies that incorporate a heat sink or fan into any designs that integrate the PA OEM module.

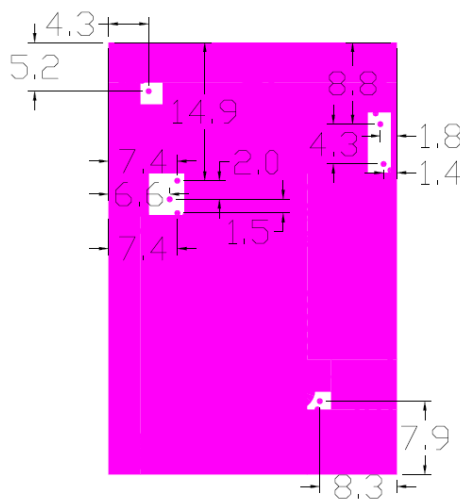
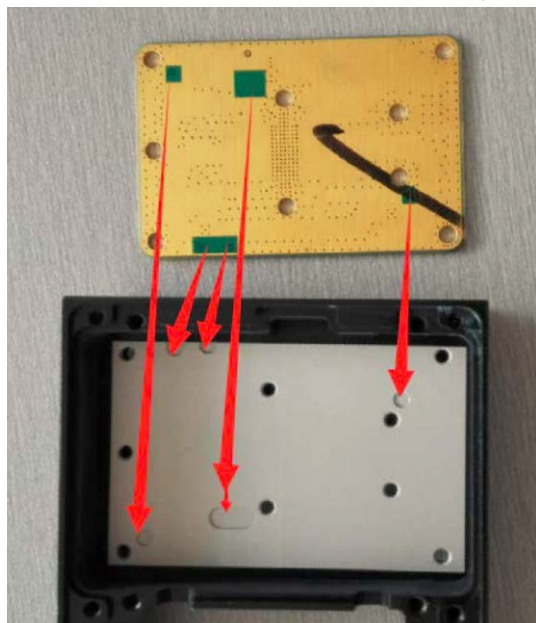
Below is an example of PA chamber with heat dissipation that incorporate a heat sink and fan.



PA1400/PA800 board size(mm)



There are some micro via holes on the back of the PA board (green color area). It covers with green oil to avoid electrical grounding connection. If the green oil was abraded during board assembling (normally it will not), the metal case should make special holes to avoid electrical grounding connection of the micro via holes. Below metal case shows this dealing (mm).



AT command to set RF power of DLM(or DLB)

Center node: AT^DRPS=,"23" ; RF power=23
 Access Node: AT^DSSMTP="23" ; Max RF power=23