

# Specification

## 1. Item

Product	2300~2400MHz Amplifier (30W)
Partnumber	EHM-2300-45-45

## 2. Revision History

Issued / Revision	R&D Approved	Revision Detail
2017-06-26	YHL	Draft
2017-08-16(REV.01)	YHL	Add TDD Switching RF Input Level Changed RX Pass Insertion Loss
2018-03-08(REV.02)	YHL	1. TDD switching time : $\leq 20\mu s$ (before it was 60us) - TBD 2. TDD switching rf input level : $\leq -30dBm$ (before it was -15dBm) 3. Heatsink is included.
2019-08-06(REV.03)	YHL	4 x tapped hole for M4 screw
2019-08-27	YHL	The dimension is changed. (The depth of M4 Tap is increased from 3mm to 5mm.)
2020-09-17(REV.04)	YHL	The heatsink height is reduced from 50mm to 35mm.
2023-03-10(REV.05)	YHL	Adding HPA Status Function to the pin 3 of D-sub 3W3 Male connector

Design	R & D	Approval
		
CYKIM		

Customer:	Date:	Part No.: EHM-2300-45-45
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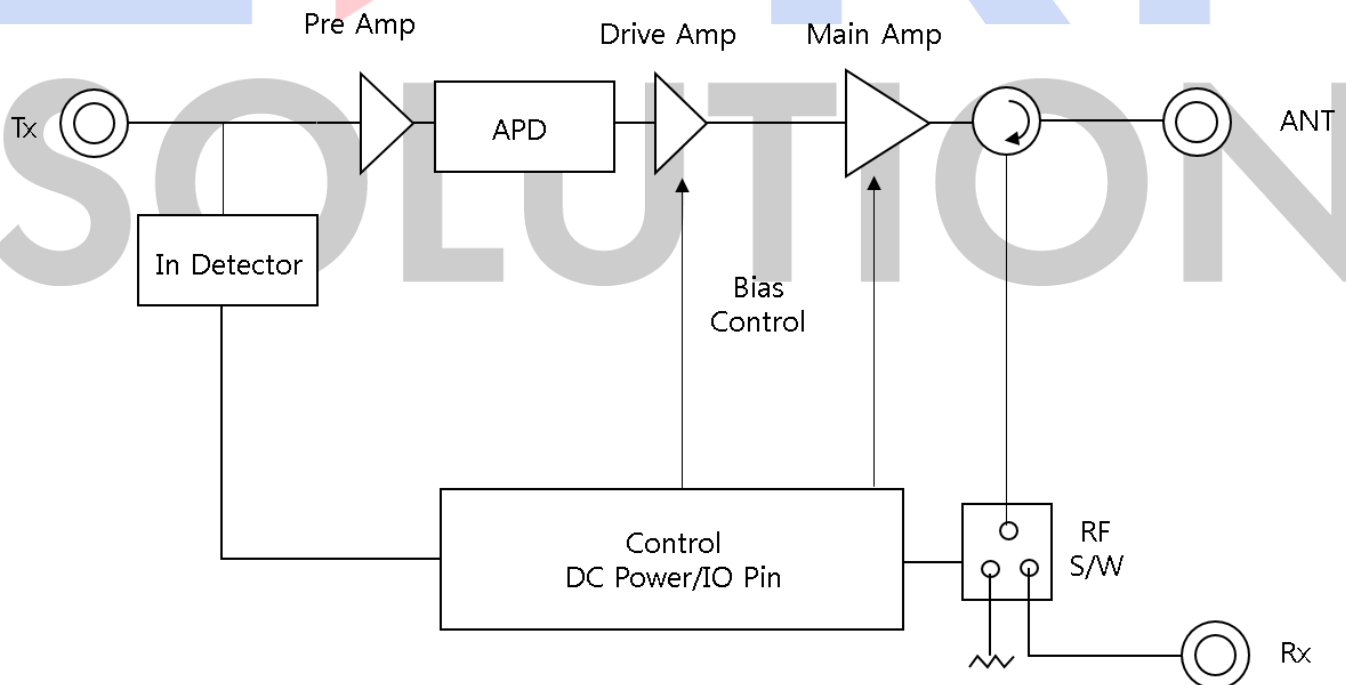
## General Specification

No.	Parameter	Specification	Unit
1	Operating Frequency Range	2300MHz ~ 2400MHz	-
2	Instantaneous Bandwidth	75MHz max	-
3	Rated Output Power	30W(+44.8dBm)	-
4	Gain	45dB min	-
5	Gain Flatness	± 1dB	-
6	RF Port Return Loss	15dB min	-
7	TDD Switching Operation	<45us @on/off	Target : <= 20us @on/off
8	TDD Switching RF Input Level	-30dBm typ.	-
9	Signal Modulation	LTE TDD, OFDMA 20MHz, PAR 8.5dB	-
10	ACLR	-45dBc min	-
11	Harmonics	-45dBc min	-
12	Spurious Signals	-60dBc min	-
13	Rx Pass Insertion Loss	-3.0dB typ.(-3.5dB max.)	-
14	Supply Voltage	+28VDC±0.2	-
15	Supply Current	4.5A typ (5A max)	-
16	Operating Case Temperature	-30°C ~ +80°C	-
17	Relative Humidity	0% ~ 80%	Non-condensing
18	Protection	Automatic Shutdown Temp. +85°C	-

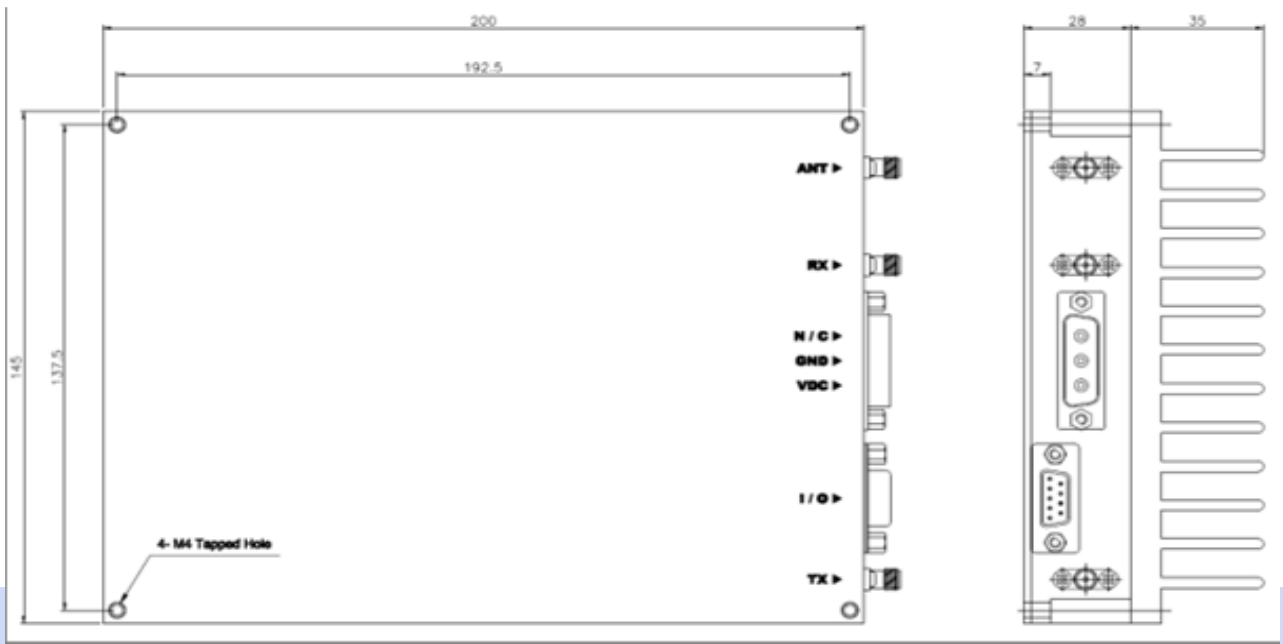
## Mechanical Specification

No.	Parameter	Specification	Unit
1	Dimension	200*145*63	W * D * H (mm)
2	Connector Type	SMA Female	-
3	Pin Map (D-sub 3W3 Male)	1. 28 VDC	+28VDC
		2. Ground	Ground
		3. Amplifier Status	Tx " High", Rx " Low"
4	Pin Map (D-sub 9Pin Male)	1. Over Power Alarm	Normal "Low", Alarm "High"@over +47dBm
		2. High Temperature Alarm	Normal "Low", Alarm "High"@over +85°C
		3. VSWR Alarm	Normal "Low", Alarm "High"@over +39dBm
		4. Temperature Monitor	(10 mV/ °C x Temp) + 500 mV
		5. HPA Status	Tx " High", Rx " Low"
		6. NC	-
		7. FWD Power Monitor	3.0V@+45dBm
		8. Enable/Disable	Enable " Low or open", Disable " High"
		9. GND	Ground
5	Cooling	Internal Heat Sink	-

## BLOCK-DIAGRAM



■ Mechanical Dimension [Unit: mm]



ECHO RF SOLUTION