

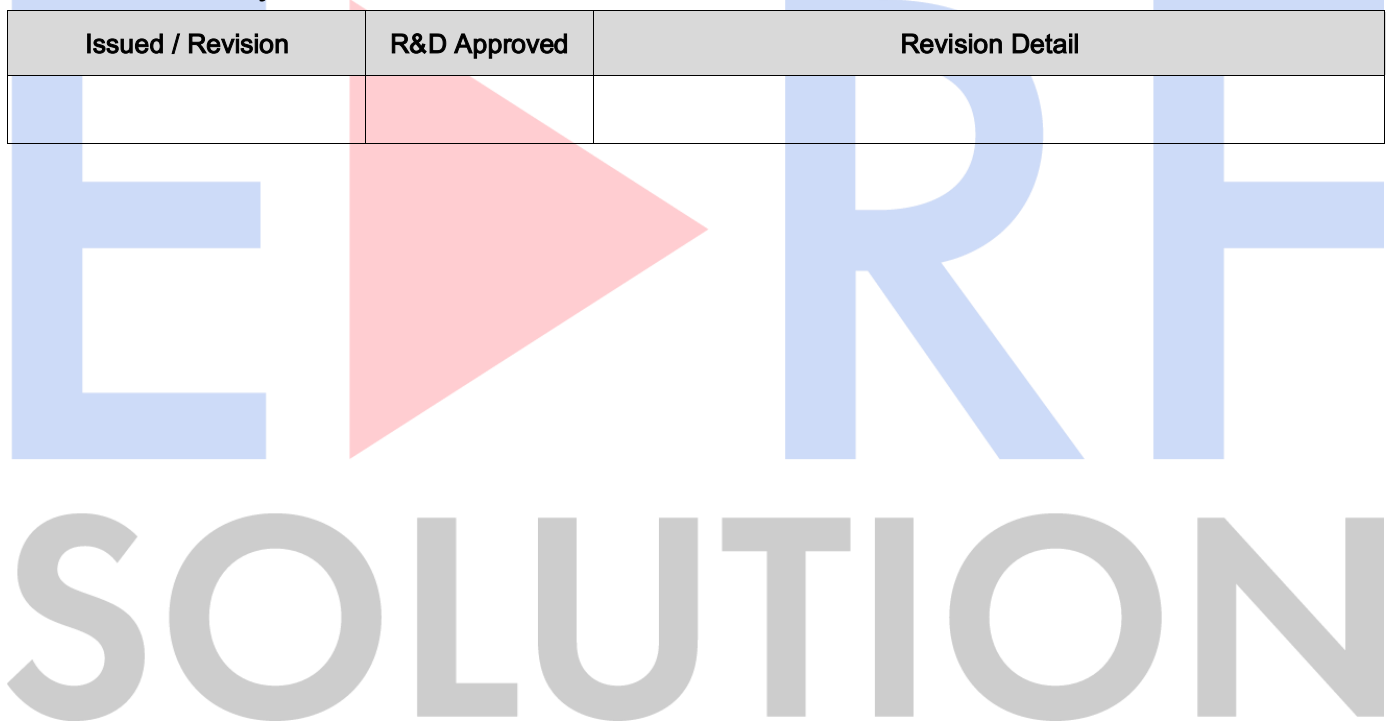
Specification

1. Item

Product	453~488MHz 5W Solidstate Amplifier
Partnumber	ESM-0453-46-45

2. Revision History

Issued / Revision	R&D Approved	Revision Detail



Design	R & D	Approval
		
CYKIM		

Customer:	Date:	Part No.: ESM-0453-46-45
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General Specification

No.	Parameter	Specification	Unit
1	Operating Frequency Range	453~488MHz	-
2	Output Power CW	40W min.	-
3	Output Power @ 1 dB Gain Compression Point	25W min.	-
4	ALC Range	10 min.	-
5	Small Signal Gain	44~46dB	-
6	Gain Flatness (ALC On)	±0.5dB	-
7	Third Order Intercept Point 2-Tones, POUT = 37dBm Avg., = 500 KHz	+55dBm typ.	-
8	Input/Output Return Loss	-14dB	-
9	Noise Figure	10dB max.	-
10	Harmonics @ P1 dB Gain Compression Point	-40dBc	-
11	Operating Voltage	26~30V	-
12	Supply Current @ POUT = 25W CW	3.0A typ.	-
13	Supply Current @ POUT = 5W Avg.	1.5A max.	-

Mechanical Specification

No.	Parameter	Specification	Unit
1	Dimensions	127*95*25	-
2	Weight	1	-
3	RF Connectors In/Out	SMA female	-
4	DC Connectors	Dsub, 9 Pins, Male	-
5	Cooling	External Heatsink	-
6	Operating Case Temperature	-10~+60°C	-
7	Storage Temperature	-40~+85°C	-
8	Relative humidity	0~95%	(non-condensing)
9	Input Overdrive	+6dBm max.	-
10	Over Power Shutdown	45dBm min.	-
11	Load VSWR @ 25W output power	∞ @ all load phase & amplitude	-
12	Thermal Overload	85°C shutdown	-

Interface Connector D-sub 9Pin

Pin No.	Description	Specifications
1	Forward Power Monitor	Continuous Analog voltage relative to forward power via RMS detector FWDM: 20 – 40 dBm @ 0 – 5 V (100 mV/dB) 30dBm output = VFWD = 2.5 VDC
2	Reverse Power Monitor	Continuous Analog voltage relative to reflected power via RMS detector REVM: 20 – 40 dBm @ 0 - 5V (100 mV/dB) 30dBm output = VREV = 2.5 VDC
3	ALC ON/OFF	ALC ON = TTL “Low” ALC OFF = TTL “High”
4	ALC Level	Continuous adjustable range via analog input levels Setting Point (ASP): 30 – 40 dBm @ 0 – 5 V (100 mV/dB) Error Range (AER): ±1.5 dB Response Time (ART): 100 mS/dB
5	Mute	Amplifier Enable: TTL “Low” or Open Amplifier Disable: TTL “High”
6	VDD	+28 ± 2 VDC
7	VDD	+28 ± 2 VDC
8	GND	Ground
9	GND	Ground
LED	LED Indicator	Output Power level indicator referenced to ALC setting (Independent of ALC ON or OFF)

SOLUTION