

ALIGNMENT PROCEDURE FOR GMR1838-2CK(UT037ZH)

TRANSMITTER

STEP	MODE	CHANNEL	FREQUENCY	CONDITION	ADJUST	METHOD
1	TX	8	467.5625MHz	CONNECT RF WATTMETER TO THE ANTENNA PATTERN ON THE PCB.	RT201	KEY THE TRANSMITTER WITH PTT, AND ADJUST THE OUTPUT POWER AT 0.55W±0.05W
2	TX	1	462.5625MHz	CONNECT FREQUENCY COUNTER TO THE ANTENNA PATTERN ON THE PCB WITH AN APPROPRIATE ATTENUATOR.	RT401	KEY THE TRANSMITTER WITHOUT ANY MODULATION. ADJUST TRANSMISSION FREQUENCY TO 462.562500MHz±100Hz
3	TX	1	462.5625MHz	CONNECT MODULATION ANALYZER TO THE ANTENNA PATTERN ON THE PCB. HPF:OFF LPF:3KHz DE-EMP:OFF CONNECT OSCILLOSCOPE TO MODULATION OUTPUT OF THE MODULATION ANALYZER. CONNECT AUDIO GENERATOR TO TP3 WAVEFORM:20Hz SQUARE WAVE MAGNITUDE:1.5Vp-p	RT402	KEY THE TRANSMITTER, AND ADJUST RT402 AS THE WAVEFORM ON THE OSCILLOSCOPE COMES TO BE A CERTAIN SQUARE WAVE
4	TX	1 +CTCSS No.27	462.5625MHz	CONNECT MODULATION ANALYZER TO THE ANTENNA PATTERN ON THE PCB. HPF:OFF LPF:15KHz DE-EMP:OFF INJECT 1KHz 60mVp-p SINE WAVE TO MICROPHONE JACK FROM AUDIO GENERATOR.	RT403	KEY THE TRANSMITTER, AND ADJUST RT403 AS THE MODULATION ANALYZER INDICATES ±2.2KHz ±0.1KHz DEVIATION.

RECEIVER

STEP	MODE	CHANNEL	FREQUENCY	CONDITION	ADJUST	METHOD
1	RX	1	462.5625MHz	CONNECT DC VOLTMETER TO TP2 INJECT -47dBm RF SIGNAL WITHOUT MODULATION FROM SSG TO THE ANTENNA PATTERN ON THE PCB.	L401	ADJUST L401 AS THE VOLTMETER INDICATES 1.3V±0.05V
2	RX	1	462.5625MHz	CONNECT SINAD METER TO SPEAKER JACK WITH 16Ω DUMMY LOAD. INJECT RF SIGNAL FROM SSG AS FOLLOWING CONDITION. MAGNITUDE:AS LARGE AS THE RECEIVER OBTAINS 10dB SINAD SENSITIVITY. DEVIATION:±1.5KHz AF FREQUENCY:1KHz	RT404	TURN RT401 FULLY C.C.W., THEN TURN SLOWLY TO C.W. AND SET IT AT THE POINT WHERE WAVEFORM APPEARS AT THE SPEAKER OUT.