6. Alignment

6-1 Alignment point

TX POWER

| VR201 |
| 10K |
| ⊕ |

FREQ	TONE	MOD	SQ
VR301 220K	VR302 22K	VR303 22K	VR101 22K
⊕	⊕	⊕	⊕

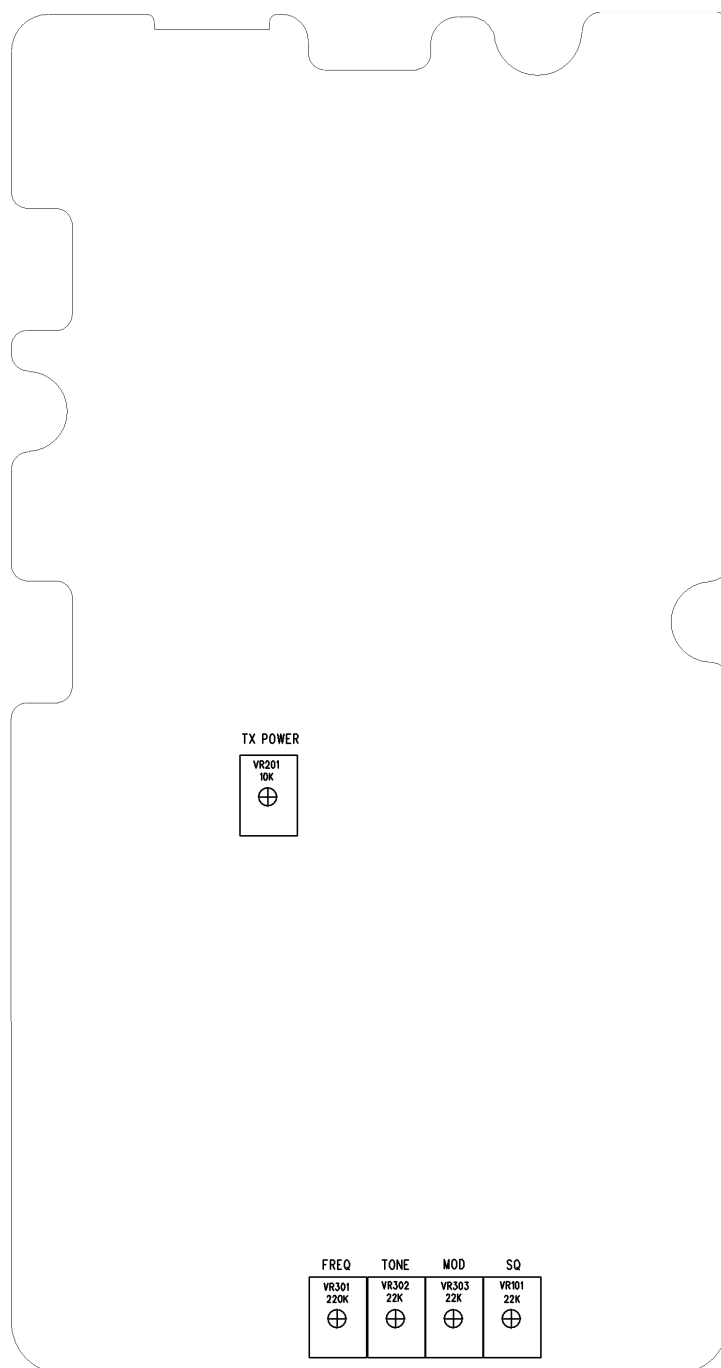**6-2   Voltage Check**

  1) Set up the radio frequency to (405.025[Mhz]) then measure whether R/Tx voltage is over 0.8[v].

  2) Set up the radio frequency (489.975[Mhz]) then measure whether R/Tx voltage is under 5[v].

  3) When Un-Lock is display on LCD means defective goods.

6-3 Transmitter

  1) At the frequency range of (446.025[MHz]),   set up Tx mode then adjust frequency by using VR 301 at the level of ±150[Hz].   High power should be 3~4.6[W].   In case of out of this range, you can check whether current is under 2A then adjust at the level of 3.8W by using VR501.
  Low power should be 1[W] ±0.2[W].   In case of out of range, you can adjust it by using VR502.
  FM DEVIATION should be adjusted at the level of 2.1[khz] ±0.1[khz] by using VR303.
  Low frequency input is 1[kHz],50[mV].

  2) After you set up MOD at the frequency range of (446.025[MHz]), adjust TONE DEVIATION by using VR 302 at the level of 0.45[kHz] ±0. k05[zH] .

6-4   Receiver,

  Set up Receiving Mode at (SSG -60d[Bm]).   At the frequency range of 446.025[MHz], FM 1.5[kHz], adjust Volume at (0.5[W]). Sensitivity at the level of 12[dB] SINAD, check whether it is under -119[dBm]., and SQ(LEVEL8) is between -117[dBm] ~ -123[dBm by using VR101.   In case of out of range,   adjust it at 120[dBm].

6-5 Wideband specification check

  At the frequency range of (446.025[MHz]), you have to check whether FM DEVIATION should be (3.6 ~ 4.8[kHz]), in case of 1G-4(446.025[MHz]), TONE DEVIATION should be (0.5~1.2[KHz]).   Also, you have to check whether in case of 1G-2(446.025[MHz]), sensitivity should be (12[dB] SINAD, -119[dBm]).   SQ sensitivity is between   -116[dBm] and   -124[dBm]

6-6 FINAL(QC) Inspect specification

  1) 456.025[MHz] Narrow

        a. Frequency   :   ±300[Hz]

        b. Output power(L/H)   :   0.7 ~ 1.2[W] / 3 ~ 4.6[W]

        c. FM DEVIATION(Narrow)   :   1.8 ~ 2.5[kHz](1[kHz], 50[mV])

        d. TONE DEVIATION   :   0.3 ~ 0.6[kHz]

        e. Sensitivity   :   < -117[dBm]

        f. SQ Sensitivity   : -116[dBm] ~ -124[dBm](

  2) 456.025[MHz] Wide band

        a. FM DEVIATION(Wide band) :   3.8 ~ 5.0[kHz](1[kHz], 50[mV])

        b. TONE DEVIATION   :   0.5 ~ 1.2[kHz]

        c. Sensitivity   :   < -117[dBm]

        d. SQ Sensitivity   : -116[dBm] ~ -124[dBm]