


ADJUSTMENT

PCB Section

| Item | Condition | Measurement | | Adjustment | | Specifications /Remarks |
|------------------------|---|-------------------|----------|------------|--------|----------------------------|
| | | Test equipment | Terminal | Parts | Method | |
| 1. Setting | 1) Power supply voltage DC Power supply terminal : 13.8V | | | | | |
| 2. VCO lock voltage | 1) CH: TX high | Digital voltmeter | TC2 | CV201 | 3.3 V | ±0.5V |
| | 2) CH: RX high | | | CV200 | 3.3 V | ±0.5V |
| | 3) CH: TX low | | | | Check | More than 0.6V |
| | 4) CH: RX low | | | | | |

Transmitter section

| Item | Condition | Measurement | | Adjustment | | Specifications |
|----------------------------|---|---|------------|---|---|---|
| | | Test equipment | Terminal | Parts | Method | /Remarks |
| 1. Frequency | 1) CH: TX center 2) Transmit | Frequency counter | ANT | Encoder knob | Adjust to the frequency | Within ±200Hz |
| 2. Maximum power alignment | 1) CH : TX high 2) Adjustment HEX value : FF 3) Transmit | Power meter | | VR200 | 55W | |
| 3. High power | 1) CH : TX low CH : TX low' CH : TX center CH : TX high' CH : TX high 2) Transmit | | | Encoder knob | 50W | ±5.0W |
| 4. Mid power | 1) CH : TX low CH : TX low' CH : TX center CH : TX high' CH : TX high 2) Transmit | | | | 10W | ±2W |
| 5. Low power | 1) CH : TX low CH : TX low' CH : TX center CH : TX high' CH : TX high 2) Transmit | | | | 5W | ±1W |
| 6. DCS balance | 1) CH : TX center 2) Transmit | | | | Modulation analyzer or Linear detector (LPF : 3kHz) Oscilloscope | Adjust the waveform as below  |
| 7.Max deviation | 1) CH : TX low (Wide) CH : TX center (Wide/Narrow) CH : TX high (Wide) 2) AG : 1kHz/120mV 3) Transmit | Modulation analyzer or linear detector (LPF15kHz) Oscilloscope AG AF. V. M | ANT MIC | ±4.3kHz (Wide) ±2.1kHz (Narrow) According to the large +, – | ±200Hz ±100Hz | |

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Transmitter section

| Item | Condition | Measurement | | Adjustment | | Specifications /Remarks |
|-------------------------|---|---|------------|-----------------|--|---------------------------------|
| | | Test equipment | Terminal | Parts | Method | |
| 8. MIC sensitivity | 1) CH : TX center (Narrow) 2) AG : 1kHz/4mV 3) Transmit | Modulation analyzer or linear detector (LPF15kHz) Oscilloscope AG AF. V. M | ANT MIC | | Check | $\pm 1.7 \sim 2.0$ kHz (Narrow) |
| 9. CTCSS fine deviation | 1) CH : TX low (Wide) CH : TX center (Wide/Narrow) CH : TX high (Wide) 2) Transmit | Modulation analyzer or Linear detector (LPF : 3kHz) Oscilloscope | | Encoder Knob | ± 0.7 kHz (Wide) ± 0.4 kHz (Narrow) | ± 200 Hz ± 100 Hz |
| 10. DCS fine deviation | 1) CH : TX low (Wide) CH : TX center (Wide/Narrow) CH : TX high (Wide) 2) Transmit | | | | ± 0.8 kHz (Wide) ± 0.4 kHz (Narrow) | ± 200 Hz ± 100 Hz |
| 11. DTMF deviation | 1) CH : TX center (Wide/Narrow) 2) Transmit | | | | ± 3.0 kHz (Wide) ± 1.5 kHz (Narrow) | ± 100 Hz |

Receiver Section

| Item | Condition | Measurement | | Adjustment | | Specifications /Remarks |
|----------------|--|---|----------------|-----------------|----------------------------|----------------------------|
| | | Test equipment | Terminal | Parts | Method | |
| 1. Sensitivity | 1) CH : RX low (Wide/Narrow) CH : RX center (Wide/Narrow) CH : RX high (Wide/Narrow) 2) SSG output: : -119 dBm (0.25 μ V) (Wide) : -116 dBm (0.35 μ V) (Narrow) Mod : 1kHz Dev : ± 3.0 kHz (Wide) Dev : ± 1.5 kHz (Narrow) | SSG Oscilloscope AF V.M Distortion meter | ANT EXT. SP | | Check | SINAD: 12dB or higher |
| 2. Squelch 20 | 1) CH : TX low (Wide) CH : TX center (Wide/Narrow) CH : TX high (Wide) 2) SSG output: : -116 dBm (0.35 μ V) (Wide) : -114 dBm (0.44 μ V) (Narrow) Mod : 1kHz Dev : ± 3.0 kHz (Wide) Dev : ± 1.5 kHz (Narrow) | | | Encoder knob | Adjust to open the squelch | |
| 3. Squelch 1 | 1) CH : TX low (Wide) CH : TX center (Wide/Narrow) CH : TX high (Wide) 2) SSG output: : -127 dBm (0.1 μ V) (Wide) : -123 dBm (0.16 μ V) (Narrow) Mod : 1kHz Dev : ± 3.0 kHz (Wide) Dev : ± 1.5 kHz (Narrow) | | | | | |