

Explanation on the circuit of WX-CT2030

- (1) Type or Type of emission:
Type of emission is F3.
- (2) Frequency range:
TX: 468.6125MHz to 469.3875MHz , provided 32 channels at 800kHz channel separation.
RX: 463.6125MHz to 464.3875MHz , provided 32 channels at 800kHz channel separation.
- (3) Range of operating power values:
The procedures of adjusting operating power are as follows,
To adjust to be maximum with loaded 50 ohms at CN1, and
from 10 to 30mW with adjusting by the volume EVR (IC202:controlled software data)
- (4) Maximum power rating as defined in the applicable part of the rule is
less than 120mW
- (5) The dc voltage applied to and dc currents into the several elements of the final frequency amplifying device for normal operation over the power range are:

		Dc voltage	Dc current
Final Stage Q3	b	0.6V	0.2mA
	c	3.1V	16mA
	e	0V	16mA
Drive Stage Q5	b	0.8V	0.2mA
	c	3.1V	7mA
	e	0.1V	7mA

- (6) Function of other semiconductors are:

Q6: Buffer Amplifier(TX)
 IC2: VCO(TX)
 Q1: Final Power supply control(TX)
 Q7: Power supply control(TX)
 IC501: Voltage Regulator(3.3V TX)
 IC504: Voltage Regulator(2.5V)
 IC502,Q501,D508: Voltage Regulator(1.9V)
 IC406: Microcomputer
 Q8: AF Mute(TX)
 IC302,Q302: AF Mixer(TX)
 IC512: OSC
 IC405: Dividing Frequency
 IC403: Tone OSC
 Q301: Tone Attenuator
 IC309: Baseband LSI
 IC301: Head Amplifier
 IC408,IC409,IC410,IC411: Shift Register
 IC401: Serial Interface
 IC201,D201: PLL(TX and RX)
 IC202: Electric Volume(TX and RX)
 IC402: Tone detection
 IC404: EEPROM
 IC407: Reset IC
 Q102: RF Amplifier(RX)
 Q103: Mixer(RX)
 Q105: 1 st IF Amplifier
 IC102: Demodulation IC(RX)
 IC302: LPF and HPF(RX)
 IC101: VCO(RX)

- (7) Tune up procedure over the power range
The procedures of adjusting operating power are as follows
To adjust to be maximum with loaded 50 ohms at CN1, and
from 5 to 25mW with adjusting by the volume EVR(IC202: controlled software data)
- (8) The circuitry and device provided for determining and stabilizing frequency are:
X201, IC201, C204, C206, C214, C225, D201 for PLL(VCO) circuit
- (9) The circuitry provided for suppression of spurious radiation, limiting modulation and limiting power are as follows.
- 1 Device employed for suppression of spurious radiation:
C15, C17, C18, C19, C21, L4, L5, L903 for passive filter.
 - 2 Device employed for suppression of limiting modulation:
IC309 for limiting circuit.
 - 3 Device employed for limiting power are not necessary for this equipment as even under the condition of adjusting operating :

Power to be maximum, it takes values within the range defined as the rules.

- (10) This equipment does not employ digital modulation techniques.