

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.