

MATSUSHITA ELECTRIC INDUSTRIAL CO. . LTD .
KADOMA OSAKA JAPAN .

Ref. : AVS-03-F001

Model WX-CH2050

(1

of 3)

Explanation on the circuit of WX-CH2050

(1) Type or Type of emission:

Type of emission is F3.

(2) Frequency range:

TX: 463.6125MHz to 464.3875MHz, provided 32 channels at 800KHz channel

separation

Rx: 468.6125MHz to 469.3875MHz provided 32 channels at 800 KHz 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 5 to 2
5mW 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 voltages applied to and dc currents into the several elements of the final

Frequency amplifying device for normal operation over the power range are :

		<u>DC Voltage</u>	<u>DC Current</u>
Final Stage Q3	B	0.6 V	0.4 mA
	C	0 V	25 mA
	E	2.9 V	25 mA
Drive Stage Q5	B	0.7 V	0.2 mA
	C	0.1 V	5.8 mA
	E	2.9 V	5.8 mA

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Explanation on the circuit of WX-CH2050

(6) Function of other semiconductors are:

Q6: Buffer Amplifier
IC2: VCO (TX)
Q1: Final Power Supply Control
Q7: Power Supply Control (TX)
IC501: Voltage Regulator (2.5V TX)
IC504: Voltage Regulator (2.5V)
IC502, Q501, D508: Voltage Regulator (1.9V)
Q502, Q505, Q506, D515, IC511: Power Supply Control
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
Q308, IC301: Head Amplifier (AF TX)
IC408, IC409, IC410, IC411: Shift Register
IC201, D201: PLL (TX and RX)
IC202: Electronic Volume (TX and RX)
IC405: Dividing Frequency
IC402: Tone Detection
IC302: LPF
IC404: EEPROM
IC407: Reset IC
Q102: RF Amplifier (RX)
Q103: Mixer (RX)
Q105: 1st IF Amplifier (RX)
IC102: Demodulation IC (RX)
IC302: LPF and HPF (RX)
Q305, Q306, D304: Mute Control (RX)
IC311, Q309: AF Switch (RX)
IC310: Earphone Amplifier
IC101: VCO (RX)

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Explanation on the circuit of WX-CH2050

(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 2
5mW with adjusting by the volume EVR(ic202:controlled software dat
a)

(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, li
miting modulation and
limiting power are a follows.

☐ Device employed for suppression of spurious radiation:

C15, C17, C18, C19, C21, L4, L5, L903 for passive filter

☐ Device employed for suppression of limiting modulation :

IC309 for limiting circuit

3 Device employed for limiting power are not necessary for this e
quipment

as even under the condition of adjusting operating :

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

(10) This equipment does not employ digital modulation technique
s.