

Hung Chang 5604 40 MHz read out oscilloscope - Specifications

1-5. SPECIFICATIONS

1) VERTICAL DEFLECTION SYSTEM CHANNEL 1 AND CHANNEL 2

Sensitivity	: 5mV/DIV to 5V/DIV
Accuracy	: 1mV/DIV to 1V/DIV, X5 Mag
Attenuator	: $\pm 3\%$
Bandwidth	: 10 steps, 5mV/DIV to 5V/DIV in 1-2-5 sequence
Rise Time	: DC: DC to 20MHz, $-3dB$ (X5 Mag: DC to 10MHz, $-3dB$)
Maximum Input Voltage	: AC: 5Hz to 20MHz, $-3dB$ (X5 Mag: 5Hz to 10MHz, $-3dB$)
Input Impedance	: Less than 17.5 nS
Polarity Inversion	: 400V (DC + AC peak)
Chop Frequency	: 1M ohm $\pm 2\%$, Approx 25pF
Operating Mode	: CH2 only
Overshoot	: Approx 250KHz
	: CH1, CH2, ADD, DUAL
	: Less than $\pm 6\%$ (5mV/div to 0.5V/div, X1)

2) HORIZONTAL DEFLECTION SYSTEM

Operating Modes	: XY operation CH1-X axis, CH2-Y axis
Input Impedance	: 1M ohm, 25pF
Bandwidth	: DC: DC to 1MHz ($-3dB$)
XY Phase Shift	: AC: 5Hz to 1MHz ($-3dB$)
Maximum Input Voltage	: 3° or less (at 50KHz)
	: 400V (DC+AC peak)

- 3) TIME BASE**
- Sweep Modes : AUTO, NORM, SINGLE
 - Sweep Time (A) : 0.2 μ S — 0.5S/DIV \pm 3% in 1-2-5 steps (X1 only)
 - Sweep Time (B) : 0.2 μ S — 0.5mS/DIV \pm 3% in 1-2-5 steps (X1 only)
 - Magnified Sweep : 10 times \pm 5%, Max. 20nS
 - Delay Method : Continuous delay with adjustment or B trig after delay
 - Delay Time : 0.2 μ s/div ~ 0.5ms/div.
 - Delay Jitter : 1/20000 of the fullscale sweep time
 - Hold off : Continuously adjustable for A sweep
- 4) TRIGGERING**
- Trigger Source : CH1, CH2, LINE, EXT
 - Coupling : AC, HF REJ, TV, DC
 - Trigger Sensitivity : INT : DC~20MHz 1.0 div
~40MHz 2.0 div
EXT: DC~20MHz 150mVp-p
~40MHz 300mVp-p
 - Trigger Level Preset : IN : 50Hz~10MHz 1.5 div
~40MHz 3.0 div
EXT: 50Hz~10MHz 150mVp-p
~40MHz 300mVp-p
- 5) VERTICAL AMPLIFIER SIGNAL OUTPUT**
- Output Voltage : Approx. 50mV/DIV
 - Output Impedance : 50 ohm
 - Bandwidth : 50Hz-20MHz (-3 dB)
- 6) INTENSITY MODULATION Z AXIS**
- Bandwidth : DC -1MHz
 - Maximum Input Voltage : 50V (DC+AC peak), MAX AC 1KHz
 - Sensitivity : 3Vp-p
- 7) PROBE CALIBRATOR OUTPUT VOLTAGE**
- Squarewave Approx 1KHz (\pm 20%), 1Vp-p (\pm 2%)
- 8) CRT DISPLAY**
- 150mm rectangular, type with an illuminated, parallax-free, inner-face graticule
2KV accelerating potential
8x10 divisions (1 division=10mm)
- 9) POWER REQUIREMENTS**
- Voltage : AC 100V/117V/220V/240V \pm 10%, 50/60Hz
 - Power : 42W
- 10) DIMENSIONS, NET WEIGHT**
- 356x147x435mm, 9kg
- 11) ACCESSORIES**
- X1, Ref, X10 probe 2 pcs (optional), operational manual, power lead, fuse
- 12) READOUT FUNCTION**
- Switching frequency 500KHz
- 1) Panel display contents
 - Vertical Axis (CH 1, CH 2) : V/Div, MAG, UNCAL (Calculated Value)
 - Horizontal Axis : Sec/Div, MAG, UNCAL (Calculated Value)
 - 2) Cursor Reading Measurement
 - Voltage difference Δ V : Δ - REF
 - Time difference Δ t : Δ - REF
 - Effective Measurement Range : Vertical : \pm 3Div
Horizontal : \pm 4Div
- Cursor Memory : 2 Memory
- Frequency Δ 1/t : Δ - REF
 - Ratio Δ 1% : Δ - REF (100.0% at 10Div)
 - Phase Δ 1° : Δ - REF (360.0 at 10Div)