REVISIONS			DOC. NO. SPC-F004 * Effective: 12/21/98 * DCP No: 680					
DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
905	A	RELEASED	JWM	2/21/02	HO	2/21/02	DJC	2/21/02

FEATURES

- 100 MHz, Dual Channel, Delayed Sweep
- 10 Sets Memory for Front Panel Setting Save & Recall
- Time Base Auto-range
- Cursor Readout with 7 Measurements
- Panel Setup Lock of Digital-Control Functions
- Buzzer Alarm
- LED Indicators
- TV Synchronization
- Trigger Signal Output
- Z-Axis Modulation Input
- SMD Technology, High Stability and Reliability

CE

SPC-F004.DWG

TENMA®

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
Jeff McVicker	2/21/02
CHECKED BY:	DATE:
Hisham Odish	2/21/02
APPROVED BY:	DATE:
Daniel Carey	2/21/02

DRAWING TITLE: 100MHz Oscilloscope

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	72-6820	18C2258.dwg	A

SCALE: NTS | U.O.M.: INCHES [mm] | SHEET: 1 OF 3

CRT

Type 6-inch rectangular type with internal graticule;
0%, 10%, 90% and 100% markers. 8 x 10 DIV (1 DIV=1 cm)
Phosphor: P31
Accelerating Potential: 16 kV approx.
Illumination: Continuously adjustable
Z-axis input: Coupling: DC
Sensitivity: 5V or more
Maximum input voltage: 30V(DC+AC peak) at 1kHz or less
Bandwidth: DC ~ 5MHz

VERTICAL SYSTEM

Sensitivity: 2mV ~ 5V / DIV,11 step in 1-2-5 sequence
Sensitivity Accuracy: ≤ 3% (5 DIV at the center of display)
Vernier Vertical Sensitivity: Continuously variable to 1 / 2.5 or less panel-indicate value
Bandwidth(-3dB): DC ~ 100MHz (2mV/DIV : DC ~ 20MHz)
Rise Time: 3.5nS (2mV/DIV : 17.5 nS)
Signal Delay: Leading edge can be monitored
Max. Input Voltage: 400V (DC+AC peak) at 1kHz or less
Input Coupling: AC, DC, GND
Input Impedance: 1M Ω ±2%// approx. 25pF
Vertical Mode: CH1, CH2, DUAL (CHOP/ALT), ADD, CH2 INV.
Bandwidth Limited: 20MHz
Common-Mode Rejection Ratio: 50 :1 or better at 50kHz

HORIZONTAL SYSTEM

Horizontal Modes: MAIN (A), ALT, DELAY (B)
A(main)Sweep Time: 50nS ~ 0.5S / DIV, continuously variable (UNCAL)
B(delay)Sweep Time: 50nS ~ 50mS / DIV
Accuracy: ±3% (+ 5% at x 10 MAG)
Sweep Magnification: x 10 (maximum sweep time 5nS / DIV)
Hold Off Time: Variable
Delay Time: 1µS ~ 5S
Delay Jitter: Better than 1:20000
Alternate Separation: Variable

TRIGGER

Trigger Modes: AUTO, NORM, TV
Trigger Source: CH1, CH2, LINE, EXT
Trigger Coupling: AC, DC, HFR, LFR
Trigger Slope: "+" or "-" polarity or TV sync polarity
Trigger Sensitivity:

Mode	Frequency	INT	EXT
AUTO	10Hz ~ 20MHz	0.35 DIV	50 mV
	20MHz ~ 100MHz	1.5 DIV	150 mV
NORM	DC ~ 20MHz	0.35 DIV	50 mV
	20MHz ~ 100MHz	1.5 DIV	150 mV
TV	sync signal	1 DIV	200 mV_{pp}

TV Sync: TV-V, TV-H
Max. External Input Voltage: 400V (DC+AC peak) at 1kHz
External Input Impedance: 1M Ω ±5%, // approx. 25pF

X-Y OPERATION

Mode: X-axis: selectable CH1, CH2, EXT
Y-axis: selectable CH1, CH2, CH1 and CH2
Sensitivity Accuracy: 2mV ~ 5V/DIV ±3 %; EXT : 0.1V/DIV ±5 %
X-axis Bandwidth: DC ~ 500kHz (-3dB)
Phase Error: 3º or less from DC ~ 50kHz

OUTPUT SIGNAL

Trigger Signal Output: Voltage: approx. 25mV/DIV into 50 Ω
Frequency response : DC ~ 10MHz
Calibrator Output: 1kHz Squarewave, 2Vpp±2 %

CURSOR READOUT FUNCTION

Cursor Measurement Function: ΔV, ΔV%, ΔVdB, ΔT, 1/ΔT, ΔT%, Δθ
Cursor Resolution: 1 / 100 DIV
Effective Cursor Range Vertical: ±3DIV; Horizontal: ±4DIV
Panel Setting Display Vertical: V/DIV(CH1,CH2), UNCAL, ALT/CHOP/ADD, INV,
probe factor, AC/DC/GND
Horizontal: S / DIV(MTB,DTB), UNCAL, x 10MAG, delay time, HO
Trigger: source, coupling, slope, level, TV-V, TV-H
Others: X-Y, lock, save/recall MEM 0-9

SPECIAL FUNCTION

TIME/DIV Auto Range Provided
Panel Setting Save & Recall 10 sets
Panel Setups Lock Provided
POWER SOURCE AC: 100V / 120V / 230V ±10 %, 50 / 60Hz
ACCESSORIES: Power cord, Instruction manual, two Probes(10:1/1:1)
DIMENSIONS & WEIGHT 310(W) x 150(H) x 455(D) mm; Approx. 9kg

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