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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



SPC-F004.DWG

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TENMA®

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APPROVED BY:	DATE:
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DRAWING TITLE:

100MHz Oscilloscope

SIZE DWG. NO.

A

72-6820

ELECTRONIC FILE

18C2258.dwg

REV

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: $\leq 3\%$ (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: $1M \Omega \pm 2\%$ // 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: $\pm 3\%$ (+ 5% at x 10 MAG)
 Sweep Magnification: x 10 (maximum sweep time 5nS / DIV)
 Hold Off Time: Variable
 Delay Time: 1 μ S ~ 5S
 Delay Jitter: Better than 1:20000
 Alternate Separation: Variable

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	72-6820	18C2258.dwg	A
SCALE:	NTS	U.O.M.: INCHES [mm]	SHEET: 2 OF 3

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 \pm 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 \pm 3%; EXT : 0.1V/DIV \pm 5 %

X-axis Bandwidth: DC ~ 500kHz (-3dB)

Phase Error: 3° 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 \pm 2 %

CURSOR READOUT FUNCTION

Cursor Measurement Function: Δ V, Δ V%, Δ VdB, Δ T, 1/ Δ T, Δ T%, Δ θ

Cursor Resolution: 1 / 100 DIV

Effective Cursor Range Vertical: \pm 3DIV; Horizontal: \pm 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 \pm 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

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	72-6820	18C2258.dwg	A
SCALE:	NTS	U.O.M.: INCHES [mm]	SHEET: 3 OF 3