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TION OF WHOLE OR VITHOUT OF SPC	REVISIONS				DOC. NO. SPC-F004 * Effective: 12/21/98 * DCP No: 680					
	DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE	
	430	Α	RELEASED	JWM	3/14/01	JC	9/4/01	DJC	9/21/01	



#### Specifications

### Period, Pulse Width, Delay

Each parameter is variable within 8 overlapping decade ranges with a vernier providing continuously variable control within each range.

# Period

Range: 100nsec to 10sec (10MHz to 1Hz) Jitter: <0.1%

# Pulse Width

Range: 50nsec to 5sec

# Jitter: <0.1%

Delay: Range: 50nsec to 5sec

# Trigger, Gate

#### Run

Normal operational mode in which pulses are generated continuously at 0.1Hz to 10MHz.

# Triggered

DC to 10MHz pulse train in synchronism with external trigger pulses; pulse width determined by pulse width controls. Trigger can be generated manually from front panel button.

#### Gated

0.1Hz to 10MHz pulse train, parameters set by period and pulse width controls, starts synchronously with leading edge of gate input. Last pulse is completed at the end of gating period. Gating signal can be generated manually from front panel button.

## Pulse Modes

# Normal Pulse

One pulse is generated each period. The delay setting is ignored.

# Square wave

0.1Hz to 10MHz squarewave, frequency set by the period controls. Pulse width and delay settings ignored. Mark: Space Ratio: 1:1±10 %

# Double Pulse

A second pulse is generated after a delay set by the delay controls; the delay is related to the leading edge of the first pulse.

### **Delayed Pulse**

A pulse is generated after a delay set by the delay controls; the delay is related to the rising edge of the trigger signal.

# Inputs

# Gate/Trig Input Frequency Range: DC~10MHz Signal Range: TTL threshold; max. input ±10V Min. pulse width: >30nsec

Input Impedance: Typically 10k  $\Omega$ 

# Outputs

50Ω Output

Amplitude: Two switch selectable ranges of 0.1V~1.0V and 1V~10V from 50  $\Omega$ . (50mV to 500mV and 500mV to 5V into 50 $\Omega$ ) Adjustable within ranges by a single turn vernier. Rise/Fall Times: Typically 10nsec into 50  $\Omega$  load. Maximum 15ns Aberrations: Typically <5 % for output set at >20 % of range max. into 50  $\Omega$ 

### Aux. Output

Duplicates  $50\,\Omega$  output but at a fixed CMOS/TTL level Sync Output

Amplitude: a positive going pulse at CMOS/TTL level. Timing: Leading edge starts >20nsec before the TTL/50  $\Omega$  output transition. Duration: Typically 30nsec

# **Complement Switch**

Inverts the AUX and 50  $\Omega$  outputs

### General

Power: 115V AC nominal 50/60Hz, adjustable internally; operating range ±14% of nominal; 20VA max. Size: 140mm(H) x 220mm(W) x 230mm(D) Weight: 1.6kg (3.5lb) Operating Range: +5°C to 40°C; 20 %~80% R.H. Storage Range: -40°C to 70°C Safety: Complies with EN61010-1 EMC: Complies with EN5508-1 and EN50082-1

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	DRAWN BY:	DATE:	DRAWING TITLE: 10MHz Pulse Generator with Delay						
UNLESS OTHERWISE	Jeff McVicker	3/14/01					Delay		
DIMENSIONS ARE	CHECKED BY:	DATE:	SIZE	DWG. NO.		ELEC	FRONIC FILE	REV	
FOR REFERENCE	JOHN COLE	9/4/01	A	72-6860		19	Α		
	APPROVED BY:	DATE:							
	Daniel Carey	9/21/01	SCALE	E: NTS	U.O.M.: INCHES [mm]		SHEET: 1 OF 1		