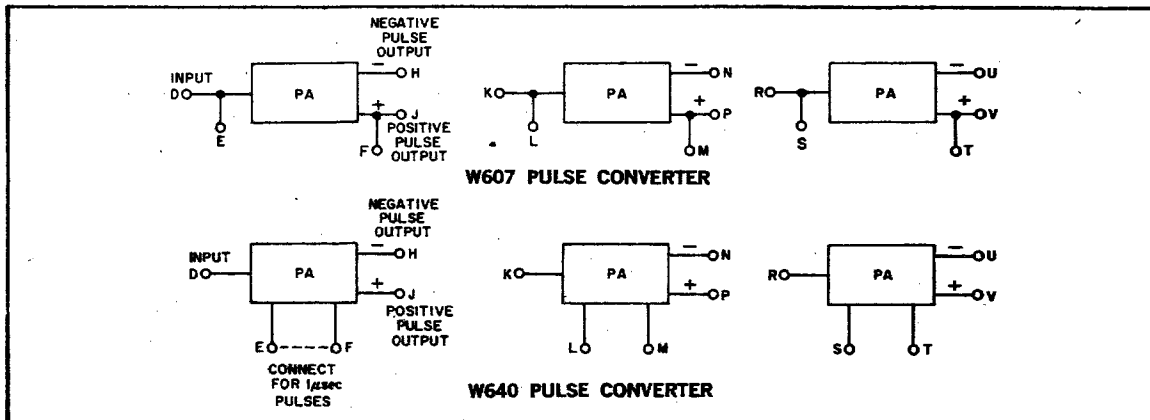


PULSE OUTPUT CONVERTERS

TYPES W607 AND W640

W

SERIES



These pulse converters were designed primarily to facilitate the use of Flip Chip modules in conjunction with Digital Laboratory and System Modules. In addition, the W607 can be useful in setting or clearing B series unbuffered flip-flops via inverters such as B104 or gates such as B113.

Outputs from these pulse converters are taken from floating pulse-transformer windings. In addition to allowing data transmission independent of ground system integrity, this feature permits two or three outputs to be series-connected for larger pulse amplitudes when inputs are driven simultaneously.

For purposes other than driving Digital Laboratory and System Modules, it may be important to consider the effect of pulse transformer backswing at the end of each pulse. When the load is light, this transformer recovery spike approaches the amplitude of the pulse itself.

INPUT: Standard Digital positive pulses or a level change from -3 volts to ground. See table below

for other characteristics. Unless wider than standard output pulses are acceptable, W607 inputs must not be paralleled with clamped loads, such as those internally tied to R107 outputs. W640 output pulse-width is not affected by input loads. No connections should be made to W640 pins E or F (L or M, S or T) other than shorting them together to obtain 1 µsec output pulses.

OUTPUT: A standard 2.5v pulse. To obtain a negative output, ground the positive output terminal. To obtain a positive output, ground the negative output terminal. Each output can drive up to 10 ma of load, in addition to a terminating resistor. A terminating resistor must be used. Its value should be about 47Ω for lightest loads, and about 150Ω for heaviest loads. Reactances in loads and leads cause pulses to grow in transmission, and optimum values must be determined empirically. See table for other characteristics.

POWER: W607: +10v(A)/0 ma; -15v(B)/35 ma.
W640: +10v(A)/0 ma; -15v(B)/25 ma.

Module	Input				Output			Laboratory Series	System Series
	Load	Ground	Rise Times	-3 volts	Delay	Width	Max. Freq.		
W607	10 ma	≧40 nsec	≧100 nsec	≧330 nsec	20 nsec	70 nsec	2.5 mc	100	1000
W640	2 ma	≧70 nsec	≧250 nsec	≧1 µsec	40 nsec	400 nsec	500 kc	3000	4000
W640 E to F, etc.	2 ma	≧70 nsec	≧250 nsec	≧3 µsec	40 nsec	1 µsec	200 kc	3000	4000

W607 — \$42.00
W640 — \$42.00