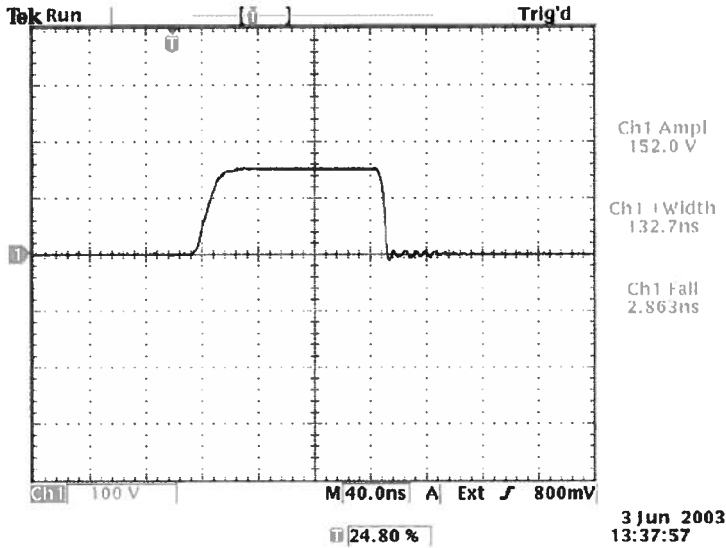


PULSE GENERATOR  
PERFORMANCE CHECK

Model: AVIR-3-B-P-QTKA

S.N.: 10592

Date: June 3, 2003



a) Output Signal Amplitude: 0 to +150V

b) Pulse Width: 20 ns - 130 ns

c) Rise Time: < 10 ns

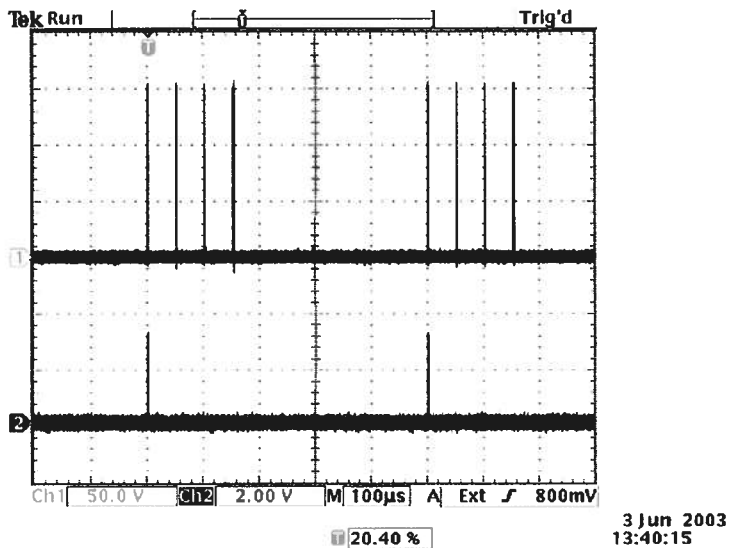
d) Fall Time: < 10 ns

e) PRF: 1 Hz - 20 kHz

f) Jitter, Stability: OK

Main OUT, +150V amplitude, 130 ns PW, into 50Ω.  
100 V / div, 40 ns / div.

g) Prime Power: 120/240V AC, 50-60 Hz,



Top: Main OUT, +150V amplitude, burst count (N) = 4,  
Pulse separation = 50 us. 50 V / div.

Bottom: SYNC out. 2 V / div.

Both: PRF = 2 kHz. 100 us / div.



# AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS  
SINCE 1975

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## "-B" Functional Test & Calibration Certificate

Date of test:	June 3, 2003				Tester:	MJC
Programmed model name:	AVIR-3-B-P-QTKA					
Programmed serial number:	10592					
Firmware revision:	2.49					
Internal trigger checked at:	2 Hz	20 Hz	200 Hz	2 kHz	20 kHz	
Actual measured output <sup>1</sup> :	2.021 Hz	20.16 Hz	201.5 Hz	1.999 kHz	19.94 kHz	
External trigger checked:	yes			Gate checked:	yes	
Manual trigger checked:	yes					
Pulse compression checked:	yes		Low Amplitude PW Distortion Nulled:		N/A	
Pulse width checked at:	20 ns	50 ns	130 ns	At 20% rise.		
Actual measured output <sup>2</sup> :	20.0 ns	50.0 ns	129.9 ns	150V, 20 kHz.		
PWin = PWout mode checked:	N/A		DC mode checked:		N/A	
Duty Cycle Limit:	N/A					
Delay nulled:	yes					
Delay checked at:	100 ns	200 ns	500 ns	20 kHz, +150V		
Actual measured output <sup>1</sup> :	100 ns	200 ns	502 ns	to 50 Ohms		
Double pulse checked:	Burst mode, 1-500.					
Invert mode checked:	N/A					
ECL/TTL modes checked:	N/A					
Zout switch checked:	N/A					
Amplitude checked at:	+20V	+50V	+100V	+150V	20 kHz, 130 ns	
Actual measured output <sup>2</sup> :	+20.0V	+50.2V	+100.4V	+150.4V	to 50 Ohms	
Amplitude polarity:	+					
Zout calibration:	N/A					
Electronic amplitude control:	N/A					
External amplify mode:	N/A					
Bleeder resistors adequate:	yes					
Ultraviolet flux removed:	N/A					
Monitor V/I Ratio:	N/A		Monitor offset nulled:			
LCD Monitor calibrated:	N/A					
Offset checked at:	N/A					
Actual measured output <sup>2</sup> :	N/A					
Offset nulled (output on):	N/A		Amplitude-dependent offset nulled:			
Offset nulled (output off):	N/A					
RS-232 checked:	yes					
LCD pull-ups installed:	yes					
PN trigger pull-downs installed:	N/A					
PW stable during amplitude changes:	yes					
Sync pulse width checked:	200 ns nom					
Circuit Boards:	PS:	93	Main:	108G		
Overload Trigger Resistance:	Trips at:	N/A	Installed:	12K		
DC fuses:	Positive:	0.5A	Negative:	N/A		
AC Current:	Quiescent:	0.360A@115V 0.172A@230V	Max. Load:	0.403A@115V 0.193A@230V		
AC fuse:	1.0A (for 115V operation)					
120/240V operation:	OK		Fan operational:	yes		
Photographed:	yes					

<sup>1</sup> Checked with: Fluke PM6681 Counter (S/N 9446 066 81016),  
referenced to Datum ExacTime 9390-6000 (S/N 4461) GPS Frequency Reference

<sup>2</sup> Checked with: Tektronix TDS3052 digital oscilloscope (S/N B014783) for PW ≥ 5 ns,  
Tektronix 7704A/7S11/7T11/S4 sampling oscilloscope system (Cal. Label 112506) for PW < 5 ns.