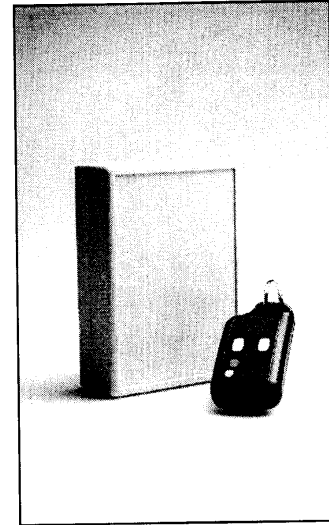


3524309
3524310

Low Cost AM Remote control System

- Complete Remote Control System
- Easy Installation Via Screw Terminals.
- 12Vdc Supply.
- 3 Relay Outputs.
- 4 Digital Outputs.
- Momentary or Latching Outputs
- Relay Contacts 2 A@ 12Vdc.
- Requires No Radio Licence.
- Range Up To 45 Metres
- High Security Protocol.



Description

The RF Solutions 118 series Remote Control System is supplied as a complete system ready to operate. It is available as a one or three channel system.

Operation of the transmitter keyfob causes the relay in the receiver decoder to operate. The relay can be set to operate as either latching or momentary

Both encoder and decoder are supplied in tough ABS enclosures, requiring power and relay connections in the decoder to operate. Screw terminals are provided for this.

Technical specification

Encoder

Keyfob Dimensions: 66 x 34 x 16mm
 Supply Voltage: 12V (Battery Type GP23A)
 Operating Frequency: 433.92MHz
 Output Power: 10mW

Decoder

Supply Voltage 9-16Vdc
 Relays Rated 1A @ 12Vdc
 Supply Current: 25mA (Quiescent)
 100mA (Relay Operating)
 Outputs Momentary or Latching
 Relay Contacts: COM, NO, NC
 Physical Dimensions: 110 x 85 x 35mm

PART No	DESCRIPTION
118C1R1	Remote control System 1 Channel, 433MHz
118C3R1	Remote control System 3 Channel, 433MHz

3511236
351248
3511250

Performance Characteristics

* Denotes Warranted Specifications, all others are typical. Specifications are valid after a 30-minute warm-up period and $\pm 10^{\circ}\text{C}$ from firmware calibration temperature.

Acquisition: Analog Channels		Range ¹	Dual Cursor Accuracy* ¹
Sample Rate	200 MSa/s maximum per scope channel	1 mV/div to 5 V/div	$\pm\{\text{DC Vertical Gain Accuracy} + 0.4\%$ full scale (~1 LSB)} Example: for 50 mV signal, scope set to 10 mV/div (80 mV full scale), 5 mV offset, accuracy = $\pm\{2.0\%(80\text{ mV}) + .4\%(80\text{ mV})\} = \pm 1.92\text{ mV}$
Memory Depth	2 MB/channel 4 MB max with single scope channel on (Single mode)	Maximum Input CAT I 300 Vrms, 400 Vpk CAT II 100 Vrms, 400 Vpk with 10074C 10:1 probe: CAT I 500 Vpk, CAT II 400 Vpk	
Vertical Resolution	8 bits	Offset Range $\pm 5\text{ V}$ on ranges < 10 mV/div $\pm 25\text{ V}$ on ranges 10 mV/div to 199 mV/div $\pm 100\text{ V}$ on ranges $\geq 200\text{ mV/div}$	
Peak Detection	5 ns	Dynamic Range Lesser of $\pm 8\text{ div}$ or $\pm 32\text{ V}$	Vertical System: Digital Channels (54621D and 54622D only)
Averaging	selectable from 2, 4, 8, 16, 32, 64 ... to 16k	Input Resistance 1 M Ω \pm 1%	Number of Channels 16 Digital – labeled D15 – D0
High Resolution Mode	12 bits of resolution when > 200 us/div, (average mode with ave = 1)	Input Capacitance ~ 14 pF	Threshold Selections Pod 1: D7 – D0, Pod 2: D15 – D8
Filter:	Sinx/x interpolation (single shot BW = sample rate/4) with vectors on.	Coupling ac, dc, ground	Maximum Input Voltage $\pm 40\text{ V}$ peak CAT I
Acquisition: Digital Channels (on 54621D and 54622D only)		BW Limit ~ 20 MHz selectable	Threshold Range $\pm 8.0\text{ V}$ in 10 mV increments
Sample Rate	400 MSa/s maximum	Channel-to-Channel Isolation dc to 20 MHz > 40 dB (with channels at same V/div); 20 MHz to max bandwidth > 30 dB	Threshold Accuracy* $\pm (100\text{ mV} + 3\%$ of threshold setting)
Memory Depth Per Channel	8 channels same pod 8 MB/channel maximum	Probes 10:1 10074C shipped standard for each analog channel	Input Dynamic Range $\pm 10\text{ V}$ about threshold
	2 pods in use 4 MB/channel maximum	Probe ID (Agilent/HP & Tek Compatible) Auto probe sense	Minimum Input Voltage Swing 500 mV peak-to-peak
Vertical Resolution	1 bit	ESD Tolerance $\pm 2\text{ kV}$	Input Capacitance ~ 8 pF
Glitch Detection (min pulse width)	5 ns	Noise Peak-to-Peak 2% full scale or 1 mV, whichever is greater	Input Resistance 100 k Ω , $\pm 2\%$ at probe tip
Vertical System: Analog Channels		Common Mode Rejection Ratio 20 dB @ 50 MHz	Channel-to-Channel Skew 2 ns typical, 3 ns maximum
Scope Channels	54621A/D, 54622A/D Ch 1 and 2 simultaneous acquisition	DC Vertical Gain Accuracy* ¹ $\pm 2.0\%$ full scale	Horizontal:
	54624A Ch 1, 2, 3 and 4 simultaneous acquisition	DC Vertical Offset Accuracy < 200 mV/div $\pm 0.1\text{ div} \pm 1.0\text{ mV} \pm 0.5\%$ offset value $\geq 200\text{ mV/div}$ $\pm 0.1\text{ div} \pm 1.0\text{ mV} \pm 1.5\%$ offset value	Range 5 ns/div to 50 s/div
54621A/D	Bandwidth (~3 dB)* dc to 60 MHz	Single Cursor Accuracy ¹ $\pm\{\text{DC Vertical Gain Accuracy} + \text{DC Vertical Offset Accuracy} + 0.2\%$ full scale (~1/2 LSB)} Example: for 50 mV signal, scope set to 10 mV/div (80 mV full scale), 5 mV offset, accuracy = $\pm\{2.0\%(80\text{ mV}) + 0.1 (10\text{ mV}) + 1.0\text{ mV} + 0.5\% (5\text{ mV}) + .2\%(80\text{ mV})\} = \pm 3.78\text{ mV}$	Resolution 40 ps
	ac coupled 3.5 Hz to 60 MHz		Vernier 1-2-5 increments when off, 25 minor increments between major settings when on
	Calculated risetime ~5.8 ns (= 0.35/bandwidth)		Reference Positions Left, Center, Right
54622A/D, 54624A	Bandwidth (~3 dB)* dc to 100 MHz		Delay Range Pre-trigger (negative delay) Greater of 1 screen width or 10 ms Post-trigger (positive delay) 500 seconds
	ac coupled 3.5 Hz to 100 MHz		Analog Delta-t Accuracy Same Channel* $\pm 0.01\%$ reading $\pm 0.1\%$ screen width $\pm 40\text{ ps}$ Example: for signal with pulse width of 10 μs , scope set to 5 $\mu\text{s/div}$ (50 μs screen width), delta-t accuracy = $\pm\{.01\%(10\text{ }\mu\text{s}) + 0.1\%(50\text{ }\mu\text{s}) + 40\text{ ps}\} = 51.04\text{ ns}$
	Calculated risetime ~3.5 ns (= 0.35/bandwidth)		Channel-to-Channel $\pm 0.01\%$ reading $\pm 0.1\%$ screen width $\pm 80\text{ ps}$
Single Shot Bandwidth	50 MHz		

¹ 1 mV/div is a magnification of 2 mV/div setting. For vertical accuracy calculations, use full scale of 16 mV for 1 mV/div sensitivity setting.