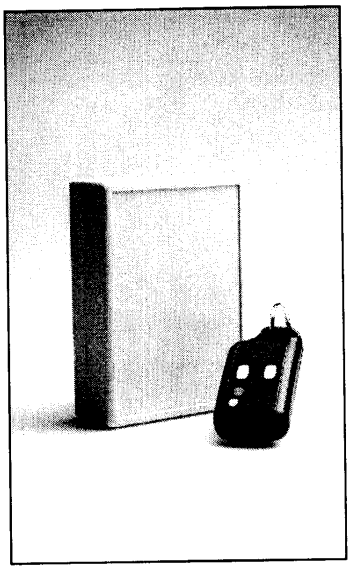
3524309
3524310

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 of 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

35112 36
35124S
35112 50

Performance Characteristics

* Denotes Warranted Specifications, all others are typical. Specifications are valid after a 30-minute warm-up period and ± 10°C from firmware calibration temperature.

Acquisition: Analog Channels

Sample Rate
200 MSa/s maximum per scope channel

Memory Depth
2 MB/channel
4 MB max with single scope channel on (Single mode)

Vertical Resolution
8 bits

Peak Detection
5 ns

Averaging
selectable from 2, 4, 8, 16, 32, 64 ... to 16k

High Resolution Mode
12 bits of resolution when > 200 us/div, (average mode with ave = 1)

Filter:
Sinx/x interpolation (single shot BW = sample rate/4) with vectors on.

Acquisition: Digital Channels (on 54621D and 54622D only)

Sample Rate
400 MSa/s maximum

Memory Depth Per Channel
8 channels same pod
8 MB/channel maximum
2 pods in use
4 MB/channel maximum

Vertical Resolution
1 bit

Glitch Detection (min pulse width)
5 ns

Vertical System: Analog Channels

Scope Channels
54621A/D, 54622A/D
Ch 1 and 2 simultaneous acquisition
54624A Ch 1, 2, 3 and 4 simultaneous acquisition

54621A/D
Bandwidth (~3 dB)*
dc to 60 MHz
ac coupled
3.5 Hz to 60 MHz
Calculated risetime
~5.8 ns (= 0.35/bandwidth)

54622A/D, 54624A
Bandwidth (~3 dB)*
dc to 100 MHz
ac coupled
3.5 Hz to 100 MHz
Calculated risetime
~3.5 ns (= 0.35/bandwidth)

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.

Range[1]
1 mV/div to 5 V/div

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

Offset Range
± 5 V on ranges < 10 mV/div
±25 V on ranges 10 mV/div to 199 mV/div
±100 V on ranges ≥ 200 mV/div

Dynamic Range
Lesser of ± 8 div or ± 32 V

Input Resistance
1 MΩ ± 1%

Input Capacitance
~ 14 pF

Coupling
ac, dc, ground

BW Limit
~ 20 MHz selectable

Channel-to-Channel Isolation
dc to 20 MHz > 40 dB (with channels at same V/div);
20 MHz to max bandwidth > 30 dB

Probes
10:1 10074C shipped standard for each analog channel

Probe ID (Agilent/HP & Tek Compatible)
Auto probe sense

ESD Tolerance
± 2 kV

Noise Peak-to-Peak
2% full scale or 1 mV, whichever is greater

Common Mode Rejection Ratio
20 dB @ 50 MHz

DC Vertical Gain Accuracy*[1]
± 2.0% full scale

DC Vertical Offset Accuracy
< 200 mV/div
± 0.1 div ± 1.0 mV ± 0.5% offset value
≥ 200 mV/div
± 0.1 div ± 1.0 mV ± 1.5% offset value

Single Cursor Accuracy[1]
±{DC Vertical Gain Accuracy + 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 = ±{2.0%(80 mV) + 0.1 (10 mV) + 1.0 mV + 0.5% (5 mV) + .2%(80 mV)} = ± 3.78 mV

Dual Cursor Accuracy*[1]
±{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 = ±{2.0%(80 mV) + .4%(80 mV)} = ± 1.92 mV

Vertical System: Digital Channels (54621D and 54622D only)

Number of Channels
16 Digital – labeled D15 – D0

Threshold Selections
Pod 1: D7 – D0, Pod 2: D15 – D8

Maximum Input Voltage
± 40 V peak CAT I

Threshold Range
± 8.0 V in 10 mV increments

Threshold Accuracy*
± (100 mV + 3% of threshold setting)

Input Dynamic Range
±10 V about threshold

Minimum Input Voltage Swing
500 mV peak-to-peak

Input Capacitance
~ 8 pF

Input Resistance
100 kΩ, ±2% at probe tip

Channel-to-Channel Skew
2 ns typical, 3 ns maximum

Horizontal:

Range
5 ns/div to 50 s/div

Resolution
40 ps

Vernier
1-2-5 increments when off, 25 minor increments between major settings when on

Reference Positions
Left, Center, Right

Delay Range
Pre-trigger (negative delay)
Greater of 1 screen width or 10 ms
Post-trigger (positive delay)
500 seconds

Analog Delta-t Accuracy
Same Channel*
± 0.01% reading ± 0.1% screen width ± 40 ps
Example: for signal with pulse width of 10 µs, scope set to 5 µs/div (50 µs screen width), delta-t accuracy = ±{.01%(10 µs) + 0.1%(50 µs) + 40 ps} = 51.04 ns

Channel-to-Channel
± 0.01% reading ± 0.1% screen width ± 80 ps