



OPERATING INSTRUCTIONS RITEC SIGNAL SELECTOR MODEL RS-5-G2

To simplify the operation of the RAM-5000 systems or the SNAP system and to eliminate the need to frequently change cable positions the RITEC RS-5-G2 Signal Selector is available as an accessory. This model includes selection for examining the monitors for two gated amplifiers. The following signal monitor points are brought to a pair of five position selector switches: "RF Pulse Monitor No. 1," "RF Pulse Monitor No. 2," "RF Receiver Out", "Phase Detector No.1 Monitor," "Phase Detector No.2 Monitor," "Integrator No.1 Monitor," "Integrator No.2 Monitor," and "Integrator Gate Monitor." Because of the amplitude of the high power RF Pulse, two monitor points may be selected for each of the RF Pulse monitors: -60 dB and -80 dB. The outputs of the two switches are then brought to a pair of BNC connectors, labeled as Channel 1 and Channel 2 for connection to the vertical inputs of an oscilloscope. The coherent trigger output is brought directly to a "Trigger" BNC connector.

In normal operation, the "RF Pulse Monitor" for Gated Amplifiers No. 1 and No. 2 and the "RF Receiver Signal Out" should be terminated at the oscilloscope channel input in 50 Ohms. This will prevent standing waves and reflections in the cable that will distort the signal amplitude and phase. When switched to the "RF Pulse Monitor No. 1 (-60 dB)," "RF Pulse Monitor No. 1 (-80 dB)," "RF Pulse Monitor No. 2 (-60 dB)," "RF Pulse Monitor No. 2 (-80 dB)," or "RF Signal Out", the outputs are automatically terminated in the 50 Ohms inside the RS-5 box itself.

Note: This technique works well at operating frequencies below approximately 10 MHz. Above 10 MHz, the cable length between the RS-5 and the inputs on the oscilloscope is sufficient for some standing waves or reflections to occur. To set the broadband receiver gain most accurately for frequencies above 10 MHz, the best method is to bypass the RS-5 and terminate at the scope directly.