

PERFORMANCE CHARACTERISTIC	CVR	SCANNING SUPERHET	IFM	COMPRESSIVE RECEIVER	CHANNELIZED RECEIVER	ACOUSTO-OPTICAL RECEIVER	DIGITAL
POI (%) for:							
CW	100	100	100	100] If use 2 in parallel	100	X
Pulsed	100	Depends on signal duty cycle & on scan speed	100 (if $t_p > T$)	100		100	
Chirped	100	Poor	100	100		100	
Frequency Agile (or MFSK)	100	Poor	100	100		100	
Operation with Multiple Simultaneous Signals	Poor. Get Ampl Distortion	Good, but possible IM and spurious; and except for CW, POI degrades	Poor. Measures only highest power signal; with equal power signals, frequency data is erroneous	Excellent	Potentially excellent, but limited if time sharing used	Excellent	X
Speed of Signal Acquisition	Instantaneous	Slow; depends on scan BW and speed	Instantaneous	Near Instantaneous	Potentially instantaneous unless time sharing used	Potentially instantaneous except for detector integ time	X
Sensitivity, Typical (dBm)	-45 without preampl	-70 to -105 dependent on coverage band and resol BW	-55 to -70 with input preampl and dependent on coverage band	Comparable to superhet with equiv resol BW. Degrades with very narrow pulses ($t_p < T$)	Comparable to equiv BW superhet but slightly worse because of channelization losses; degrades for $t_p < 1/B$	-60, but degrades with very narrow pulses ($t_p < 100$ nS)	X

TABLE 6-3: SUMMARY OF RECEIVER CHARACTERISTICS ON STAND-ALONE BASIS