

	AM SINGLE TONE, SINE-WAVE MODULATION	SSB SINGLE TONE, SINE-WAVE MODULATION	
RATED POWER	<p>RATED CARRIER POWER = 1</p> <p>LSB C USB</p>	<p>RATED PEP POWER = .5</p> <p>C USB</p>	(a)
VOLTAGE VECTORS 100% MODULATION	<p>LSB .5 C .5 USB</p> <p>PEV = 2</p>	<p>USB .7</p>	(b)
RF ENVELOPE	<p>PEV = 2 PEP = 4</p>	<p>PEV = .7 PEP = .5</p>	(c)
RCVR AUDIO SIGNAL VOLTAGE	<p>USB + LSB = 1</p>	<p>.7</p>	(d)
NOISE VOLTAGE [ARBITRARY NOISE POWER PER KC OF BW EQUAL IN AM AND SSB; i.e., (.1) ² /6 = (.07) ² /3]	<p>VOLTAGE = .1 PER 6 KC BANDWIDTH</p>	<p>VOLTAGE = .07 PER 3 KC BANDWIDTH</p>	(e)
S/N RATIO	$20 \text{ LOG } \frac{1}{.1} = 20 \text{ DB}$	$20 \text{ LOG } \frac{.7}{.07} = 20 \text{ DB}$	(f)

SSB AND AM. COMPARISON WITH EQUAL SIGNAL-TO-NOISE RATIO

FIG. 2

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