

DBL 5018

LOW POWER NARROW BAND FM IF

The DBL5018 is designed for use in FM dual conversion communication.

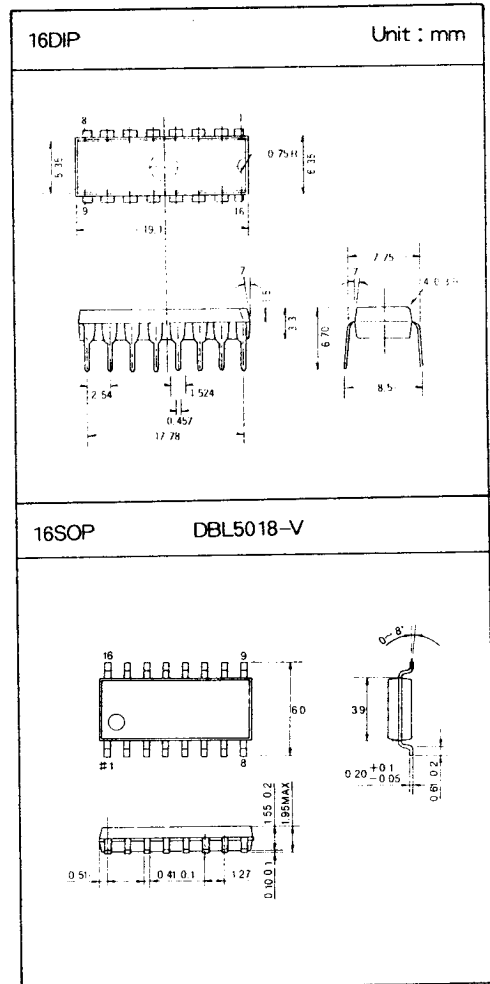
It contains a complete narrow band FM demodulation system operable to less than 2.0V supply voltage. This low power narrow band FM IF system provides the second converter, second IF, demodulator, Filter Amp and squelch circuitry for communications and scanning receivers.

FEATURES

- Operating voltage range : 2.0V~8.0V
- Low Current Consumption $I_{CC}=4.0\text{mA}$ Typ.
($V_{CC}=4.0\text{V}$)
- Excellent input sensitivity
(-3dB Limiting= $2.0\mu\text{Vrms}$ Typ.)
- Low number of external parts required
- Operating frequency up to 60MHZ

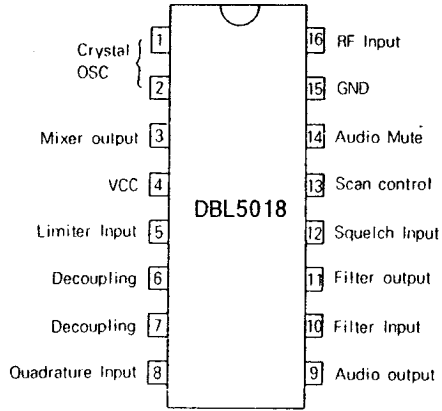
MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

| Characteristics | Symbol | Rating | Unit |
|----------------------------------------------|--------------|-----------|------------------|
| Maximum Supply voltage | $V_{CC,MAX}$ | 10 | V |
| Supply Voltage Range | V_{CC} | 2.0~8.0 | V |
| Detector input Voltage | $V_{IN,DET}$ | 1.0 | V_{p-p} |
| RF Input Voltage($V_{CC}\geq 4.0\text{v}$) | $V_{IN,RF}$ | 1.0 | V_{rms} |
| Mute Function | V_{MUTE} | -0.5~+5.0 | V_{peak} |
| Operating Temperature | T_{op} | -2.0~+70 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -65~+150 | $^\circ\text{C}$ |

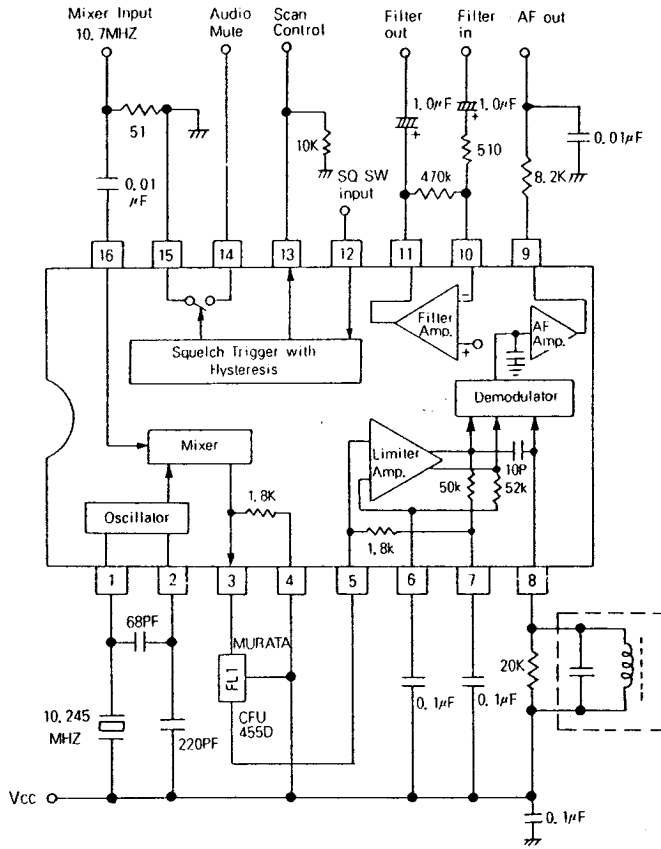


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PIN CONFIGURATION

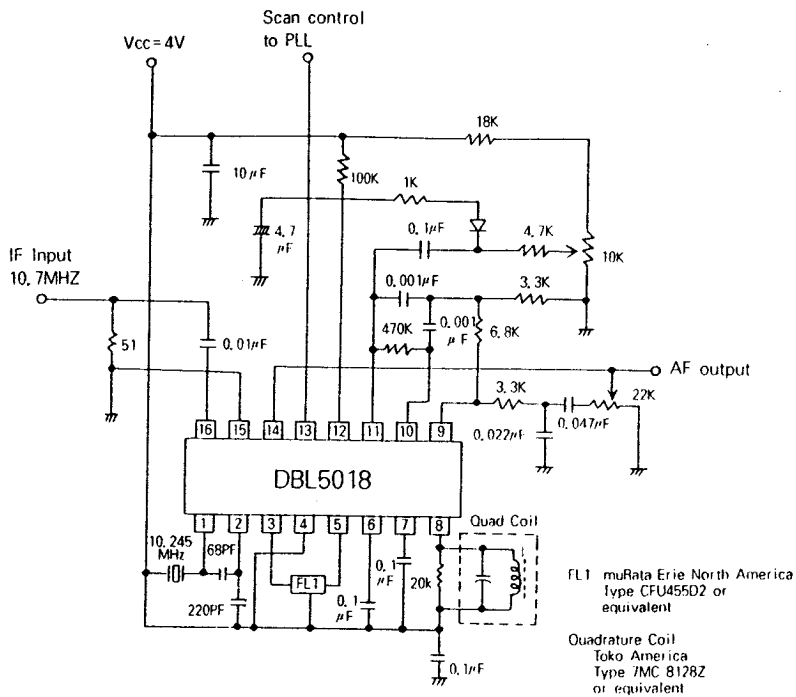


BLOCK DIAGRAM AND TEST CIRCUIT

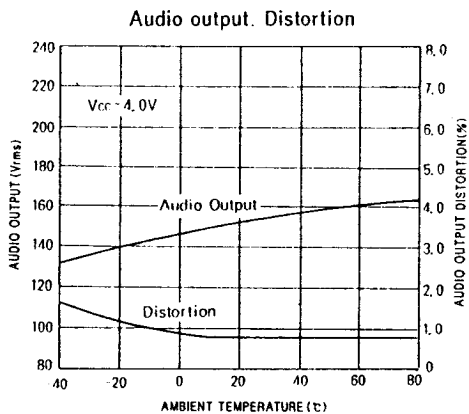
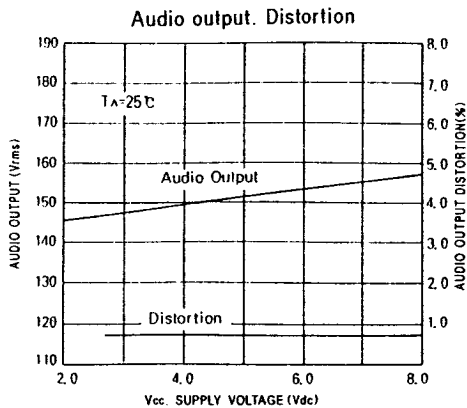


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APPLICATION CIRCUIT



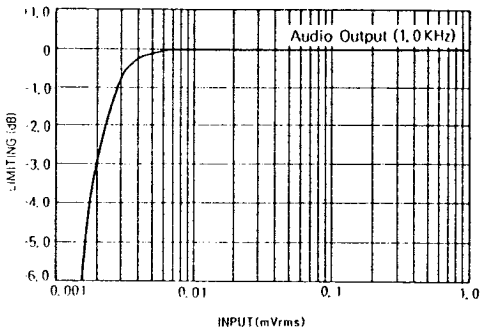
TYPICAL PERFORMANCE CHARACTERISTICS



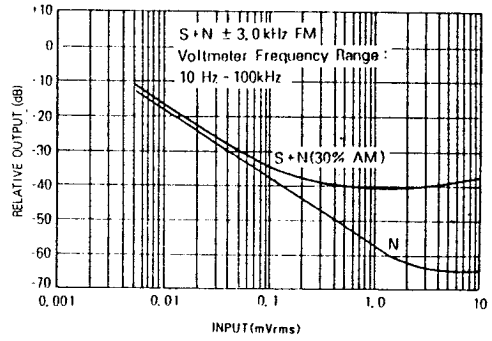
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□ TYPICAL PERFORMANCE CHARACTERISTICS

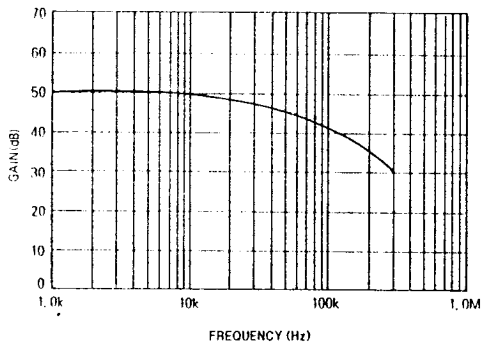
Input Limiting Voltage



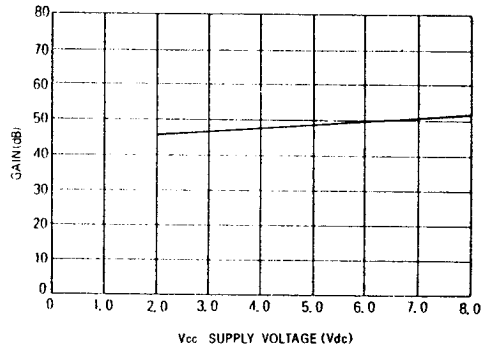
Overall Gain, Noise, and A.M. Rejection



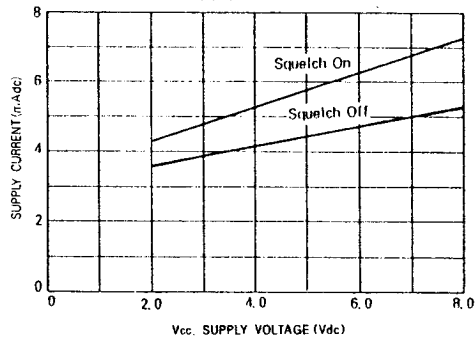
Filter AMP Response



Filter AMP Gain



Supply Current





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