



**Sciencetech 2116 MSK Modulator/ Demodulator demonstrates** the basic working of Minimum Shift Keying technique. As the name suggests, MSK results in a modulation scheme which has smooth phase variations in contrast to other phase modulation schemes where the modulated signal contains abrupt phase changes. The immediate advantage of such a scheme is the reduction in modulated signal bandwidth.

**Sciencetech 2116, MSK Modulation / Demodulation** comprises of following major blocks :

- Digital Data Generator
- Sine and Cosine Wave Generator for wave shaping
- Sine and Cosine Carrier Generator
- Clock Signal Generator
- MSK Modulator and Demodulator sections with complete signal flow

### Features

- Self contained and easy to use
- Functional blocks indicated on board mimic
- On board Data Generator
- On board Carrier Generator
- On board Clock Generators
- MSK Modulator
- MSK Demodulator

### Scope of Learning

Study of :

- Sinusoidal wave shaping used in MSK Modulation
- Minimum Shift Keying (MSK) Modulation process
- Minimum Shift Keying (MSK) Demodulation process

### Technical Specifications

#### Data Source

<b>Data rate</b>	: 16 Kbps
<b>World Length</b>	: 15 bits
<b>Data Format</b>	: NRZ (Non Return to Zero)
<b>Clock Source</b>	: 16 KHz, 8 KHz
<b>Carrier Generators</b>	: 32 KHz (Sinusoidal)
<b>Pulse Shaping Waveform</b>	: 4 KHz
<b>Interconnections</b>	: 2 mm socket
<b>Test Points</b>	: 36 nos
<b>Weight</b>	: 1.1 Kgs (approximately)
<b>Product Tutorial</b>	: Online on <a href="http://www.SciencetechLearning.com">www.SciencetechLearning.com</a>
<b>Dimensions (mm)</b>	: W 420 x D 255 x H 100
<b>Power Supply</b>	: 110V - 260V AC, 50/60Hz
<b>Weight</b>	: 1 Kg. (approximately)
<b>Operating Conditions</b>	: 0-40°C, 85% RH
<b>Included Accessories</b>	
Patch cord 16"	: 20 nos
Main cord	: 1 no.