The 7406 data formatting and carrier modulation transmitter trainer is a digital communication system which efficiently explains all communication processing steps involved in digital transmission and reception of analogue signals. Various digital modulation techniques such as ASK, FSK, PSK, DPSK, QPSK etc can be implemented using combinations of the 7406 and 7407 trainers.

In order for this unit to work correctly the 7407 carrier demodulation and data reformatting receiver is required.

**Key Features:**
- Functional blocks indicated via on board mimics
- Test points
- On-board carrier generation circuit (sine waves synchronized to transmitted data)
- On-board in phase and quadrature phase carrier for QPSK modulation
- Different data conditioning formats – NRZ(L), NRZ(M) RZ, biphase (Manchester), biphase (mark), AMI, RB
- FSK, PSK, DPSK, ASK & QPSK and DQPSK carrier modulation
- On-board unipolar to bipolar conversion
- On-board data inverter, clock source and 8-bit data source

**Experiments**
- Data formats
- Amplitude shift keying
- Frequency shift keying
- Phase shift keying
- Differential phase shift keying
- Quadrature phase shift keying
- Differential quadrature phase shift keying

**Specification**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystal Frequency</td>
<td>4.096 MHz</td>
</tr>
<tr>
<td>Data Formats</td>
<td>NRZ (L), NRZ(M) RZ, AMI, RB Biphase (Manchester), Biphase (Mark),</td>
</tr>
<tr>
<td>Carrier Modulation</td>
<td>ASK, FSK, PSK, DPSK and QPSK</td>
</tr>
<tr>
<td>On-board carrier</td>
<td>Sine wave Synchronised to transmit data at 1.6 MHz, 960KHz, (0 deg. Phase) 960 KHz (90 deg. Phase)</td>
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<tr>
<td>Test Points</td>
<td>43</td>
</tr>
<tr>
<td>Power</td>
<td>110-220V ± 10% 50/60Hz</td>
</tr>
<tr>
<td>Dimensions (mm)</td>
<td>W326, H52, D252</td>
</tr>
<tr>
<td>Weight</td>
<td>2Kg (approx.)</td>
</tr>
</tbody>
</table>
Ordering Information

Model Number: 7406
Consists of:
Data Formatting and Carrier Modulation Transmitter Trainer
Manual
Power Cord
Set of patch cables

Notes:
1. Specification is subject to change without notice.
2. All dimensions are in mm unless otherwise stated

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