Type: **VPC**

Part No.: **ENG5□□□□□□□**

Integrates an RF Modulator, electronic tuner and VIF unit in a single unit.

**Features**
- Space-saving compact single unit: 30% smaller than a separate compact system
- NTSC: 69 ml / PAL: 75 ml
- Make the VIF unit detachable
- Designed in same height and same mounting dimensions, both for the NTSC and PAL systems

**Recommended Applications**
- VTR

### Performance Specifications, Summary

#### NTSC System

<table>
<thead>
<tr>
<th></th>
<th>U.S.A. Channel</th>
<th>Japan Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. VIF</td>
<td>45.75 MHz</td>
<td>58.75 MHz</td>
</tr>
<tr>
<td>SIF</td>
<td>41.25 MHz</td>
<td>54.25 MHz</td>
</tr>
<tr>
<td>2. Video Output Signal Level</td>
<td>1.0 ± 0.2 Vp-p</td>
<td>1.0 ± 0.2 Vp-p</td>
</tr>
<tr>
<td>4. Audio Output Signal Level</td>
<td>450 m Vrms typ.</td>
<td>450 m Vrms typ.</td>
</tr>
<tr>
<td>5. Audio S / N</td>
<td>40 dB min.</td>
<td>40 dB min.</td>
</tr>
<tr>
<td>6. Supply Voltage</td>
<td>+ 12 V DC or + 9 V DC</td>
<td>+ 12 V DC or + 9 V DC</td>
</tr>
<tr>
<td>7. Channel</td>
<td>ch. 2 to 13</td>
<td>ch. 1 to 12</td>
</tr>
<tr>
<td></td>
<td>ch. A-5 to FFF</td>
<td>ch. C13 to C35</td>
</tr>
<tr>
<td></td>
<td>ch. 14 to 69</td>
<td>ch. 13 to 62</td>
</tr>
<tr>
<td>8. Noise Figure</td>
<td>ch. 2 to 13 13 dB max.</td>
<td>ch. 1 to 12 13 dB max.</td>
</tr>
<tr>
<td></td>
<td>CATV ch. 14 dB max.</td>
<td>CATV ch. 14 dB max.</td>
</tr>
<tr>
<td></td>
<td>ch. 14 to 69 14 dB max.</td>
<td>ch. 13 to 62 14 dB max.</td>
</tr>
<tr>
<td>9. Modulator Channel</td>
<td>ch. 3 / ch. 4</td>
<td>ch. 1 / ch. 2</td>
</tr>
<tr>
<td>10. Input / Output Impedance</td>
<td>75 Ω Unbalanced</td>
<td>75 Ω Unbalanced</td>
</tr>
<tr>
<td>11. Isolation (50 MHz to 110 MHz)</td>
<td>60 dB min.</td>
<td>60 dB min.</td>
</tr>
</tbody>
</table>

#### PAL System

<table>
<thead>
<tr>
<th></th>
<th>Hyper Channel (BG / DK)</th>
<th>U.K. (I)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. VIF</td>
<td>38.9 MHz</td>
<td>39.5 MHz</td>
</tr>
<tr>
<td>SIF</td>
<td>33.4 MHz</td>
<td>33.5 MHz</td>
</tr>
<tr>
<td>2. Video Output Signal Level</td>
<td>1.0 ± 0.2 Vp-p</td>
<td>1.0 ± 0.2 Vp-p</td>
</tr>
<tr>
<td>4. Audio Output Signal Level</td>
<td>520 m Vrms</td>
<td>520 m Vrms</td>
</tr>
<tr>
<td>5. Audio S / N</td>
<td>40 dB min.</td>
<td>40 dB min.</td>
</tr>
<tr>
<td>7. Channel</td>
<td>ch. K1 to S7</td>
<td>ch. 21 to 69</td>
</tr>
<tr>
<td></td>
<td>ch. S8 to S41</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ch. E21 to C57</td>
<td></td>
</tr>
<tr>
<td>8. Noise Figure</td>
<td>ch. K1 to S7 10 dB max.</td>
<td>ch. 21 to 69 11 dB max.</td>
</tr>
<tr>
<td></td>
<td>ch. S8 to S41 10 dB max.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ch. E21 to C57 11 dB max.</td>
<td></td>
</tr>
<tr>
<td>9. Modulator Channel</td>
<td>ch. 21 to 69</td>
<td>ch. 21 to 69</td>
</tr>
<tr>
<td>10. Input / Output Impedance</td>
<td>75 Ω Unbalanced</td>
<td>75 Ω Unbalanced</td>
</tr>
<tr>
<td>11. Booster Gain (44 MHz to 870 MHz)</td>
<td>3 dB</td>
<td>3 dB</td>
</tr>
</tbody>
</table>
Design. Specifications are subject to change without notice. Ask factory for technical specifications before purchase and/or use.
Whenever a doubt about safety arises from this product, please inform us immediately for technical consultation without fail.

--- EN19 ---
Block Diagram (VPC)

RF Front End System Unit

- NTSC

- Electronic Tuner
  - OSC 4MHz PLL
  - UHF OSC
  - IF AMP
  - SAW Filter
  - Video Detector
  - Video AMP
  - AFT
  - PLL CONTROL

- VHF RF AMP
  - VHF OSC
  - AGC
  - VIF

- 4MHz PLL

- UHF RF AMP
  - UHF OSC
  - Audio FM Modulation

- Resonator
  - Video carrier OSC

- Audio Mix.
  - Audio FM Modulation

- Filter
  - Video Modulation

- Electronic Tuner

- ANT IN
  - ANT OUT

- Audio IN
  - VIDEO IN
  - VIDEO OUT
  - AUDIO OUT

- Design. Specifications are subject to change without notice. Ask factory for technical specifications before purchase and/or use.
Whenever a doubt about safety arises from this product, please inform us immediately for technical consultation without fail.
Block Diagram (VPC)

- PAL

- RF Modulator
  - Video carrier OSC
  - PLL
  - 4 MHz OSC
  - Audio FM Modulation
  - Video Modulation
  - Video AMP

- RF Amp.
- Mix
- Filter
- Video carrier OSC
- PLL
- 4 MHz OSC
- Audio FM Modulation
- Video Modulation
- Video AMP

- ANT IN
- RF Amp.
- Filter
- Video carrier
- PLL
- 4 MHz OSC
- Audio FM Modulation
- Video Modulation
- Video AMP

- ANT OUT
- RF Amp.
- Filter
- Video carrier
- PLL
- 4 MHz OSC
- Audio FM Modulation
- Video Modulation
- Video AMP

- RF Amp.
- Filter
- Video carrier
- PLL
- 4 MHz OSC
- Audio FM Modulation
- Video Modulation
- Video AMP

- Electronic Tuner
- Video AMP
- Audio FM Detector
- Video OUT
- AFT
- PLL CONTROL

- ANT
- RF Modulator
- Filter
- Video carrier
- PLL
- 4 MHz OSC
- Audio FM Modulation
- Video Modulation
- Video AMP

- ANT OUT
- RF Modulator
- Filter
- Video carrier
- PLL
- 4 MHz OSC
- Audio FM Modulation
- Video Modulation
- Video AMP

- ANT IN
- RF Modulator
- Filter
- Video carrier
- PLL
- 4 MHz OSC
- Audio FM Modulation
- Video Modulation
- Video AMP

- PLL CONTROL

Design, Specifications are subject to change without notice. Ask factory for technical specifications before purchase and/or use.
Whenever a doubt about safety arises from this product, please inform us immediately for technical consultation without fail.