## 2J401F
## 2J401FD
## 2J401GF
## 2J401GFD

**Type**: GNSS module with pre-filter

**Frequencies**
- GPS (1575.42 MHz)
- GLONASS (1592 - 1610 MHz)

**Mounting**: Embedded

**Revision**: 00

---

Post-filter for better Noise figure
Small and compact

---

P. Tipul

D. Noble
1. PRODUCT SELECTOR

2J401F    GPS L1
2J401FD   GPS L1 with protection PIN diode
2J401GF   GPS+Glonass
2J401GFD  GPS+Glonass with protection PIN diode

2. SPECIFICATION

2.1. Electrical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequencies</td>
<td>GPS (1575.42 MHz)</td>
</tr>
<tr>
<td></td>
<td>GLONASS (1592 - 1610 MHz)</td>
</tr>
<tr>
<td>Impedance</td>
<td>50 Ohms</td>
</tr>
<tr>
<td>Noise figure</td>
<td>1.2 dB</td>
</tr>
<tr>
<td>Patch gain</td>
<td>2-3 dBiC</td>
</tr>
<tr>
<td>Patch size</td>
<td>25mm x 25mm x 4mm</td>
</tr>
<tr>
<td>Polarization</td>
<td>RHCP</td>
</tr>
<tr>
<td>LNA Gain</td>
<td>23 dB at 3V; 24 dB at 5V</td>
</tr>
<tr>
<td>Voltage supply</td>
<td>2.7V - 5.5V</td>
</tr>
<tr>
<td>Current</td>
<td>15mA - 25 mA</td>
</tr>
<tr>
<td>Power (max.)</td>
<td>138 mW</td>
</tr>
<tr>
<td>Note</td>
<td>Filter placed after amplifier</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-40°C to +85°C</td>
</tr>
</tbody>
</table>

2.2. Connection Specifications

- Connector type: U.FL
- Cable: Microcoax 1,13mm
- Cable length: 10 cm

For different cable length and connector type ask our sales team.

2.3. Mechanical Specifications and Dimensions

- Max. dimensions: 25mm x 8.6mm x 25mm (L x T x W)
- Weight: 14 g ‘weight counted with cable above’
- Colour: Black (for different colours please ask our sales team)
3. MEASUREMENT

3.1. S21

Figure 1 - Antenna gain at 3V

3.2. 3D Spherical radiation pattern

3.3. Block Diagram

When filter used behind amplifier, antenna have good noise figure and to end device is transmitted clean signal

Figure 2 - Antenna block diagram for 2J401F and 2J401GF

With PIN diode you can have bigger protection again spurious emissions

Figure 3 - Antenna block diagram for 2J401FD and 2J401GFD
4. IMAGES