The YQB-R5F1057A-TB is a target board used for evaluating microcontroller operations using a Renesas E1 or E2 Lite on-chip debugging emulator / flash programmer.

1. **RL78/G11 target board (YQB-R5F1057A-TB) features**
   - Incorporates RL78/G11 (R5F1057AANA).
   - Equipped with universal area (2.54mm pitch).
   - Supports both flash memory programming and on-chip debugging (using TOOL0 pin).
   - Highly extendable; peripheral board connector used to access microcontroller pins.
   - Lead-free (Pb-free) product.

2. **Hardware Specifications**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>R5F1057AANA</td>
</tr>
<tr>
<td>High Speed On-Chip Oscillator</td>
<td>48MHz to 1MHz</td>
</tr>
<tr>
<td>Crystal Oscillator Connection</td>
<td>20MHz HC-49 (Not Fitted)</td>
</tr>
<tr>
<td>Embedded parts</td>
<td>CN2 : Peripheral board connector (2.54mm pitch), 24 pin socket (pads only).</td>
</tr>
<tr>
<td>CN1 : 14-pin connector</td>
<td>(for E1 or E2 Lite connection)</td>
</tr>
<tr>
<td>Power LED</td>
<td>Red x 1 (POWERLED)</td>
</tr>
<tr>
<td>Test LED</td>
<td>Yellow x 2 (LED1 connected to P52, LED2 connected to P51).</td>
</tr>
<tr>
<td>Test Switch</td>
<td>SW1 (connected to P137 / INTP0).</td>
</tr>
<tr>
<td>Main clock</td>
<td>Internal HOCO up to 48MHz. Provision for 20MHz HC-49 crystal at position X1</td>
</tr>
<tr>
<td>Operating voltage</td>
<td>1.6V to 5.5V</td>
</tr>
</tbody>
</table>

3. **Dimensions and Parts Layout**

   - Universal Area
   - 14 pin Connector for E1 or E2 Lite
   - Power LED
   - LED1
   - LED2
   - Test Switch SW1
   - CN2

   On-Board Link options: Removing the small (0402) 0Ω link resistors leaves open the relevant circuit (see schematic). To reconnect the circuit, short the link resistor pads by soldering or reconnecting link resistor. Link resistor positions are shown on the PCB silkscreen.

4. **Product Support:** Online technical support and information is available at [http://www.renesas.com](http://www.renesas.com)

5. **Limitation of Warranty**

   The foregoing warranty does not cover damage caused by accidental misuse, abuse, neglect, misapplication or modification. No warranty of fitness for a particular purpose is offered. The user assumes the entire risk of using the product. Any liability of Renesas Electronics Europe is limited exclusively to the replacement of defective media, materials or workmanship.
RL78/G11 Target Board

Power / Analogue / Vref Configuration

MCU Port Connections

User LEDs

User Switch

Connection E1/E2 Lite

Uncommitted array of pins

Header 16way

Header 16way

Header 16way

Header 16way

Header 16way

Header 16way

Header 16way

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