

# FDI

## ΣyG-S7G2 7.0" PCAP Modular Development Kit

The Future Designs, Inc. ΣyG™ Family provides a complete and qualified Graphical User Interface (GUI) / Human Machine Interface (HMI) platform for the rapid release of customer products. The core of ΣyG (pronounced, "sig") is Renesas Synergy™ – a comprehensive and integrated software-based microcontroller platform. FDI adds the Synergy platform to its GUI hardware, systems and production expertise. The end result is a sum of high-quality products that provide a robust and proven source for GUI and HMI solutions:

$$\Sigma y G^{\text{TM}} = \text{Renesas Synergy}^{\text{TM}} + \text{GUI}$$

The ΣyG-S7G2 7.0" PCAP Modular Development Kit is optimized to save development time in typical embedded control applications. The modular format uses a base carrier board, a Renesas Synergy S7G2 SOM (System on Module) and an LCD carrier board. The base carrier board includes expansion connectors for added flexibility and a range of configurations. FDI offers low cost customization services for customer specific hardware, software or packaging applications at volumes of 500 units or more.

FDI also offers engineering design and production support services. FDI is committed to saving customers time, money and hassle. So, no matter how much (or little) support you need along the way, FDI can make your project concept a reality.

Part Number: SYG-S7G2-70C-MDK

Available for immediate order at [www.TeamFDI.com](http://www.TeamFDI.com) or from any of FDI's franchised distributors.

### Kit Contents

- Renesas Synergy™ SYG-S7G2-SOM Board
- Carrier Board
- LCD Carrier Board
- 7.0" WVGA PCAP Touch Screen LCD
- 5 VDC, 2.3A North American Power Supply
- USB and Ethernet Cables
- Segger JTAG debugger and cables



[Sales@TeamFDI.com](mailto:Sales@TeamFDI.com)  
(256) 883-1240



[TeamFDI.com](http://TeamFDI.com)



[YouTube.com/  
FDIProducts](http://YouTube.com/FDIProducts)

## Technical Specifications

### SOM – CPU Module

- Based on SODIMM form factor (Dual Inline Memory Module)
- Renesas Synergy™ S7G2 240MHz microcontroller
- 4MB of Internal flash, 640KB of Internal SRAM
- 16MB of External SDRAM
- 10/100 Ethernet PHY
- Mini-JTAG and micro SDCard connectors
- PCB Dimensions 67.6 x 57.5 mm

### Carrier Board

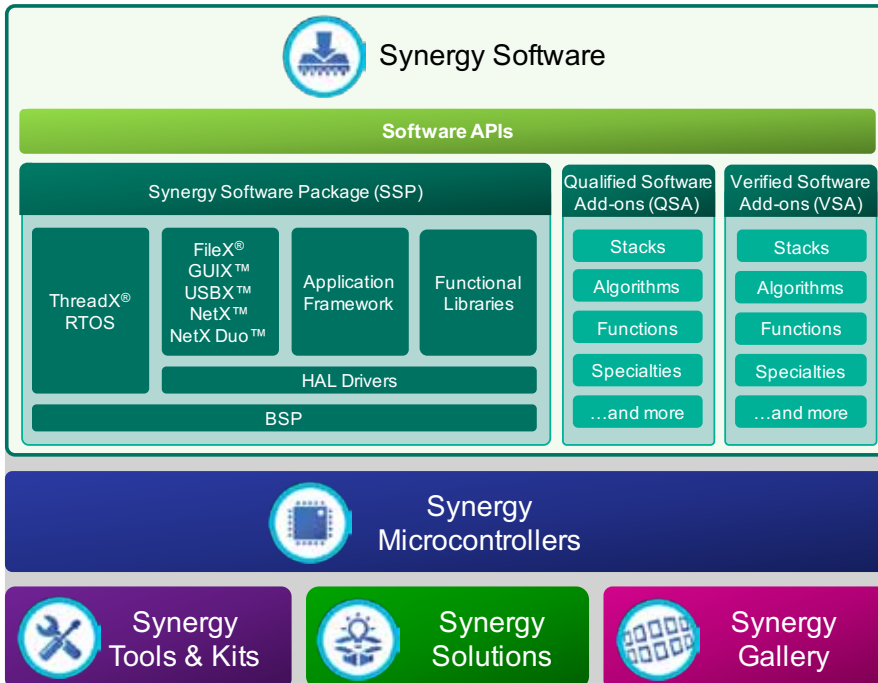
- 200-pin SOMDIMM socket
- 10/100 Ethernet PHY
- 1 CAN port (Male DB9)
- 1 RS-232 port (Male DB9)
- External I2C interface
- 3-axis Digital Accelerometer & Temperature Sensor
- Real-time clock with SuperCap backup
- Flexible power supply input can be wall supply or 5V USB
- TFT interface for LCD displays up to 1024 x 768, 18 BPP

### 7.0" WVGA Display

- Contrast Ratio: 1000 : 1 typical
- Brightness: 450 nits typical
- Horizontal Viewing Angle: 85° L / 85° R
- Vertical Viewing Angle 70° U / 50° D
- Power consumption typ/max: 750 / 1250 mA
- Overall Size: 170.2(W) x 132.1(H) x 16.5(D) mm
- Operating Temperature Range: -20°C to +70°C
- Viewable area: 152.4(W) x 91.4(H) mm
- Touch Resolution: 800 x 480



## Synergy Software



### The Renesas Synergy Software Platform Includes:

- Express Logic's ThreadX® RTOS, communication stacks, files systems & graphics library
- Optimized, scalable 32-bit MCU family
- Advanced security support
- Associated developer's tools with context-aware documentation

See more at: [TeamFDI.com/SynergySoftware](http://TeamFDI.com/SynergySoftware)



[Sales@TeamFDI.com](mailto:Sales@TeamFDI.com)  
(256) 883-1240



[TeamFDI.com](http://TeamFDI.com)



[YouTube.com/  
FDIProducts](http://YouTube.com/FDIProducts)