12G-SDI performance, featuring:
• M/A-COM® chipset (M23145G, M23428G, M23554G)

FMC Connectors
• HPC FMC connector
• Expansion (stackable) HPC FMC
  - Supports a second 12G-SDI card (do not mix and match)

IO Connectors
• HD-BNC type, 75Ω
• Ch0: Dedicated input and dedicated output
• Ch1-3: Individually config. as input or output

Clocking
• Video Sync Separator (TI's LMH1981)
  - Accepts an external video clock-in, and provides Field Sync, Vsync, and Hsync to the FMC conn
• Video Clock Generator (TI’s LMH1983™)
  - Accepts Field Sync, Vsync, and Hsync from the FMC connector, and returns 4 synchronized video clocks, and 4 corresponding frame timing signals to the FMC connector
• Standard video frequency oscillators
  - 148.5MHz and 148.35165MHz
  - Can be cross-switched to the FMC connector

Power Requirements
• Main rails: 12V@0.3A and 3.3V
• VADJ: 1.5 to 3.3V (onboard level translators)
• Estimated dissipation: 5W

Board Dimension
• Single width, air-cooled, HPC FMC with regions 1,2,3

Adapter Cables
• QTY 2: HD-BNC-to-BNC, ~10cm (~4”) length
**Function Block Diagram**

**Available References**

**Design Package (available under license)**
- Schematics, PCB Layout, Artwork, Bill of Materials

**FPGA Reference Designs**
- Downloadable .bit file examples
- Licensable source (some blocks netlist encrypted)
- KC705 and KCU105 target, coming soon

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**Sales and Support**
For additional information, questions or request for quotation visit: www.fidus.com

**Customize your FMCH-12GSDI**
Speak with our Design Services Group on how to accelerate your custom design: design@fidus.com

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**About Fidus**
Fidus Systems, founded in 2001, specializes in leading-edge electronic product development with offices in Ottawa and Waterloo Ontario, and San Jose, California. Our hardware, software, FPGA and signal integrity teams architect, design and deliver next-generation products for clients in emerging technology markets. We build long-term relationships by consistently exceeding expectations.

**Ottawa Design Center and Headquarters**
555 Legget Drive, Suite 800
Ottawa, ON K2K 2X3 Canada
+1 (613) 595-0507 x200

**Kitchener-Waterloo Design Center**
137 Glasgow Street, Suite 445
Kitchener, ON N2G 4X8 Canada
+1 (519) 576-0060

**Silicon Valley Design Center**
927 Corporate Way
Fremont, CA 94539-6118 USA
+1 (408) 217-1928 x0