# **ANCE-821**

#### Based on FMC standard 8-channel 250MSPS 16-bit AD acquisition sub-card module

ANCE-821 is an 8-channel 125MHz sampling rate 16-bit AD acquisition FMC subcard that complies with the VITA57.1 specification and can be used as an ideal IO module coupled to the FPGA front end. The 8-channel AD is connected to the FPGA via a high-bandwidth FMC connector (HPC). Thus the system signal delay is greatly reduced.

The board supports an on-board programmable sampling clock and an external reference clock as well as a sampling clock. Multiple boards can also be synchronized by triggering (input/output) signals. The board's 8-channel analog signals are input via a 50 $\Omega$  characteristic impedance SSMC RF connector and coupled to the ADC front end via a Barron transformer. The board can be widely used in communication multi-carrier, radar and smart antenna, test and measurement, software radio, etc.





## Specifications

- Performance index
  - Supports 8-way 16-bit 125MSPS sampling rate;
  - Support single-ended AC coupling input;
  - Input voltage range: 2.0Vpp~2.8Vpp;
  - Analog input bandwidth: 650MHz;
  - Signal to noise ratio (SNR) 79.9dBFS (16MHz, Vref=1.4V);
  - Signal to noise ratio (SNR) 78.1dBFS (64MHz, Vref=1.4V);
  - Spury-free dynamic range (SFDR) : 86dBc (to Nyquist);
  - ENOB@9.7MHz: 12.9bits
- FMC interface indicators:
  - standard FMC sub-card, conforming to VITA57.1 specification;
  - ➢ The board supports 1 EEPROM.
  - FMC Connector Model: ASP-134488-01, HPC port;
  - > The board adopts +12V power supply, the typical power consumption of the whole board is 4W;
- Clock allocation:
  - supports external clock mode.
  - on-board 1 high precision clock chip HMC7044;
- Other features:
  - supports external triggering;
  - on-board status indicator;
- Physical and electrical characteristics
  - Board size: 84.1 x 69mm
  - Board power supply: 3A max@+3.3V (±5%)
  - Heat dissipation mode: natural air cooling or metal cooling
- Environmental characteristics
  - Operating temperature: -40°~+85°C;
    - ITC-Electronics www.itc-electronics.com

- Storage temperature: -55°~+125°C;
- > Operating humidity: 5%~95%, non-condensing

#### Software support

- Optional Board level Software development Kit (BSP) :
  - Support Xilinx development board, such as VC707\VC709;
  - Support Kintex-7, Virtex-7 carrier program transplantation;
- Can provide customized algorithms and system integration according to customer needs:

### Scope of application

- Radar and smart antenna;
- Test and measurement;
- Software radio;

#### **Ordering Info:**

#### ANCE-821

Based on the VITA57.1 standard JESD204B interface 8 channels 125MSPS 16 bit AD acquisition subcard module