The Sony CXD2837ER is a combined DVB-T2/T2-Lite, DVB-T and DVB-C demodulator

C XD2837ER conforms to the ETSI EN 302-755 V1.3.1 (DVB-T2/T2-Lite), ETSI EN 300-744 V1.6.1 (DVB-T) and ETSI EN 300-429 V1.2.1 (DVB-C) standards.

C XD2837ER offers class-leading performance, optimised BOM requiring no external memory and low processor overhead.

**FEATURES DVB-T**
- Complies with DTG D-Book7.0 V2.0, NorDig-Unified V2.2.1 and targeting upcoming Digital Europe Ebook requirements
- Supports all DVB-T2 modes, including:
  - 1.7, 5, 6, 7, 8MHz signal bandwidths
  - Single and multiple-PLPs
  - T2-Lite profile
  - SISO and MISO transmission
- Simple API
  - Fully-automatic acquisition,
  - Fully-automatic L1-signalling decoding
  - Automatic spectrum inversion
  - Automatic guard-interval detection
  - Automatically-calculated constant-rate TS output (using L1 signalling and ISSY)
- Frequency offset detection range up to +/-600kHz allows acquisition and performance optimisation via tuner frequency offset compensation
- Automatic common-PLP and data-PLP combination
- Null-packet insertion
- Improved performance for multipath channel (outside the guard interval)
- Supports L1-post scrambling

**FEATURES DVB-C**
- Complies with NorDig-Unified Ver2.2.1
- Wide symbol range, 1.8 to 7.2Msym/s
- Integrated matched filter 0.15 roll-off factor
- Frequency offset detection range up to +/-500kHz allows acquisition and performance optimisation via tuner frequency offset compensation
- Excellent equalization for cancellation of reflections at larger delays
- Improved performance against continuous wave interference

**GENERAL FEATURES**
- Single, 41MHz or 20.5MHz crystal up to +/-100ppm
- High performance differential signal ADC
- RF monitor ADC for terrestrial best mux selection
- Low IF and high IF (36MHz) mode input
- Fast 400kHz I2C compatible bus interface
- Quiet I2C interface for dedicated tuner control
- Programmable I2C addresses allowing up to four devices
- Automatic IF AGC and programmable RF AGC/GPIO
- Parallel and serial MPEG-2 TS outputs with smoothing
- 3.3V, 1.1V supplies
- Temperature range -20°C to +85°C
- 48 pin VQFN 7mm x 7mm package
- Supplied with full reference design, including software driver, PCB schematic/layouts, and documentation