

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

CXD2837ER 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.

CXD2837ER offers class-leading performance, optimised BOM requiring no external memory and low processor overhead.

FEATURES DVB-T2

- 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-T

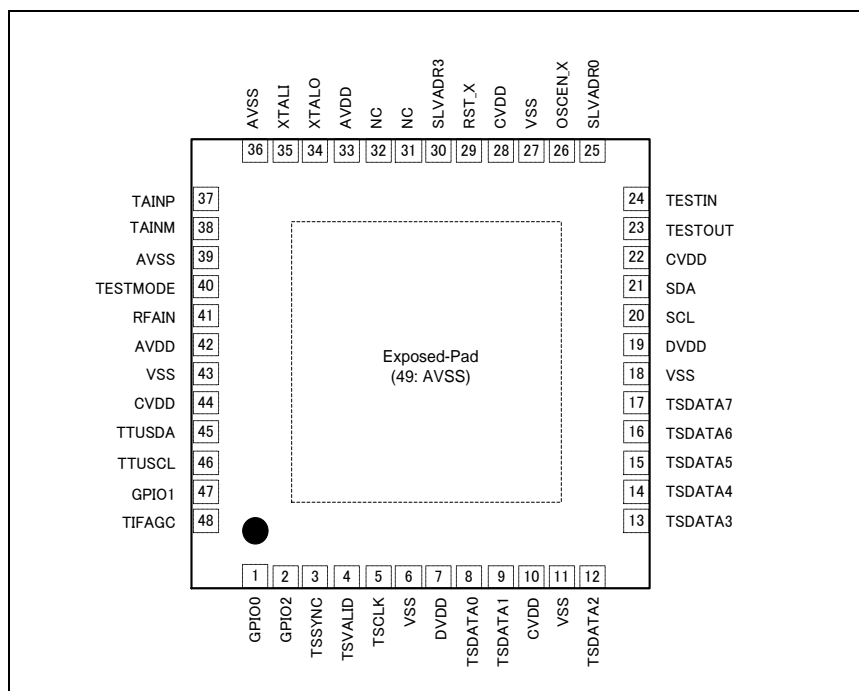
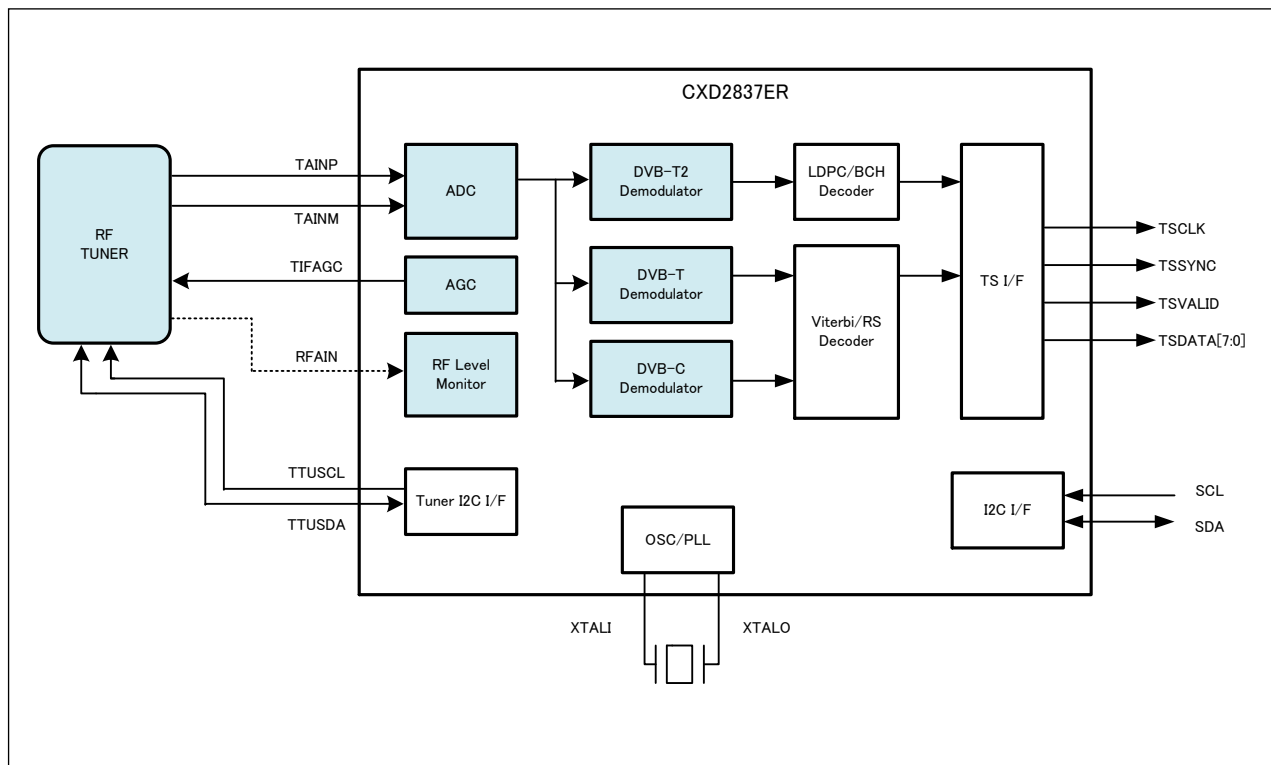
- Complies with all European standards for static and portable equipment including NorDig-Unified 2.2.1, DTG D-Book7.0 V2.0, IEC 62216 and targeting upcoming Digital Europe Ebook requirements
- Smart Auto Acquisition controller with fast 2k/8k acquisition, low processor overhead and re-acquisition mode
- Frequency offset detection range up to +/-600kHz allows acquisition and performance optimisation via tuner frequency offset compensation
- Advanced channel corrector for low multipath loss and enhanced Doppler performance
- Improved CNR performance for AWGN channel

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



Europe

Semiconductor & Electronic Solutions, Sony Europe Limited
 The Heights, Brooklands, Weybridge, Surrey KT13 0XW, United Kingdom
 Telephone +44 (0)1932 816000

Support Contact: DVBDemod_Support@eu.sony.com
 Web: www.sony.co.uk/pro/products/semiconductors

Asia/Pacific

System LSI Biz Division, Device Solution Business Group
 4-14-1 Asahi-Machi Atsugi-city, Kanagawa, Japan 243-0014
 Telephone +81 (0)50 3809 0382

Support Contact: sbg-tuner-support@jp.sony.com