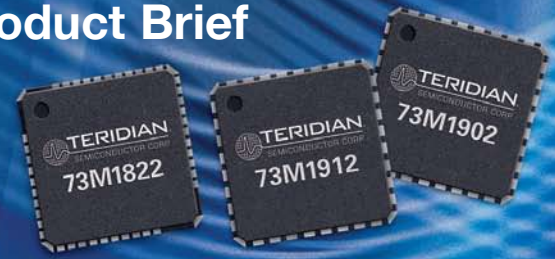


MicroDAA™ with Serial Interface



Description

The Teridian 73M1x22 MicroDAA™ device family is an integrated solution that uses a unique data access arrangement (DAA) function designed exclusively for data/fax modem and voice applications. The devices provide a serial MAFE interface to popular DSP/host processors to implement a globally compliant cost effective soft modem solution.

Suitable applications for the 73M1x22 include set top boxes, low to high speed (PCM) voice band data modems, point of sale terminals, fax and multi-function peripherals, text telephony and embedded telemetry (industrial and medical).

The 73M1x22 device family consists of the 73M1922 which is a two chip set consisting of a PSTN line side device and host/digital side device. The 73M1822 is a single package solution of the 73M1922 chipset, providing a small form factor with necessary isolation requirements.

KEY FEATURES:	BENEFITS:
Full Analog Front End and DAA for voice-band modem applications	<ul style="list-style-type: none"> ➤ Integrated functionality supports the connection of voice-band modems and devices to the PSTN.
Single Package Device (73M1822)	<ul style="list-style-type: none"> ➤ Small form factor, provides up to 4.5 kV isolation
Two Chip Set (73M1922)	<ul style="list-style-type: none"> ➤ Allows support for over 4.5kV isolation (recommended for 6kV applications)
Integrated support for programmable DAA with a single BOM for worldwide homologation	<ul style="list-style-type: none"> ➤ Global DAA compliance with FCC, TBR-21, JATE and other PTT standards with one BOM ➤ Choice of PSTN line termination and impedance matching circuits to meet global needs ➤ Programmable PSTN line current control to match different country homologation requirements.
Low bill of materials cost and area footprint	<ul style="list-style-type: none"> ➤ Better than 2.0 in2 (10.2 cm2) board area ➤ Available in 5x5mm 32-Pin QFN or 20 Pin TSSOP (73M1922) or 8x8mm 42-pin QFN (73M1822) packages ➤ 3.0V – 3.6V operating voltage
Teridians's MicroDAA™ architecture	<ul style="list-style-type: none"> ➤ Offers best in class EMI and noise performance ➤ Improves loop length performance by providing power to line side device over the isolation barrier.
<ul style="list-style-type: none"> ➤ Uses low cost pulse transformer 	

The 73M1x22 is based on patented technology, that sets new standards in reliability and cost. A small pulse transformer forms a digital isolation barrier, transferring both power and data to the PSTN line side components. This results in reliable performance in presence of EMI and a tolerance to line voltage variations by providing power to the line side across the barrier thus enhancing overall performance.

73M1x22 sets new standards for soft modem Silicon DAA performance

Teridian Semiconductor Corporation is a Silicon DAA technology pioneer and patent holder with a long history of development and innovation including the capacitive isolation barrier technology licensed to 3rd parties and has been globally deployed in low speed and high speed analog modems.

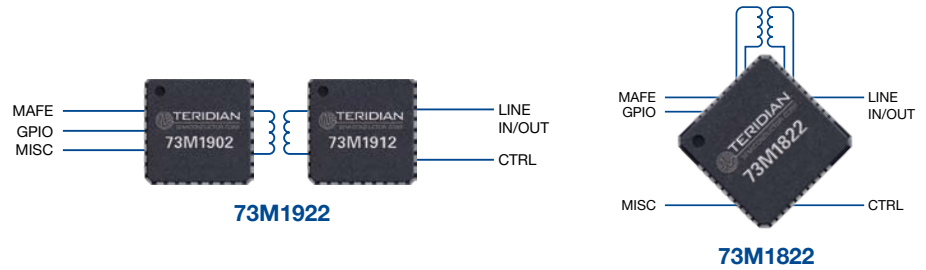


Applications

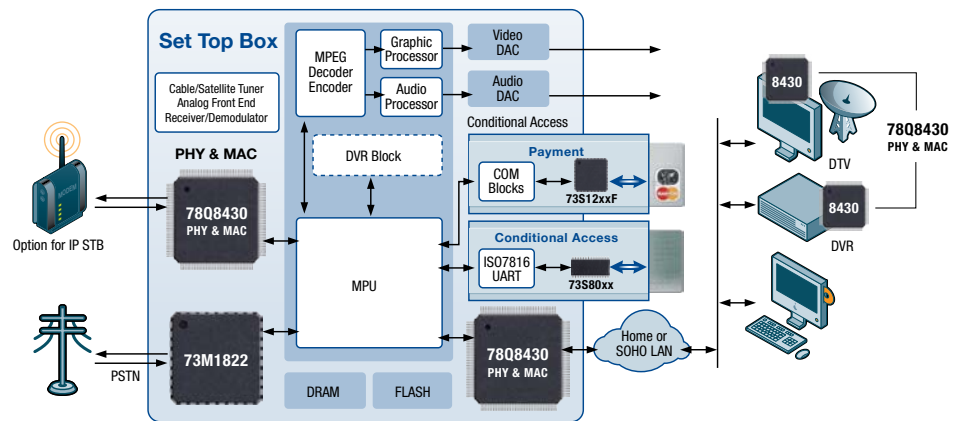
- High speed voice band data modems
- Embedded modem applications such as medical and industrial telemetry
- Satellite Set Top Boxes
- Fax/Multifunction Peripherals (MFP)
- Point of Sale Terminals

Additional Features

- Line isolation
 - 4.5 kV for 73M1822
 - Better than 5kV for 73M1922
- Pulse transformer barrier
 - Digital transmission of signal and control
 - Isolated PSU for line side device
 - differential circuit with best in class EMI and common mode noise performance
- DAA control and operation
 - Hook control
 - Ring detection
 - Call Progress Monitor
- Auxiliary A/D for line supervisory functions
 - Support for Line-in-use detection
 - Support for Parallel Pick up detection
 - Line voltage polarity reversal detection without host intervention
- Host serial interface (MAFE) support of Master, Slave and Daisy Chain modes
- Low power modes
 - Sleep mode
 - Power down mode
 - Wake-on-Ring
- GPIO for user programmable I/O ports
- Operating Environment
 - 3.3V supply voltage
 - Industrial/commercial temperature grades
 - 20-pin TSSOP, RoHS package
 - 32-pin QFN, RoHS package



Set Top Box Application



Ordering Information

PART DESCRIPTION	ORDERING NUMBER
73M1922 32 pin QFN, Lead Free	73M1922-IM/F
73M1922 32 pin QFN, Lead Free, Tape and Reel	73M1922-IMR/F
73M1922 20 pin TSSOP, Lead Free	73M1922-IVT/F
73M1922 20pin TSSOP, Lead Free, Tape and Reel	73M1922-IVTR/F
73M1822 42 pin QFN, Lead Free	73M1822-IM/F
73M1822 42 pin QFN, Lead Free, Tape and Reel	73M1822-IMR/F