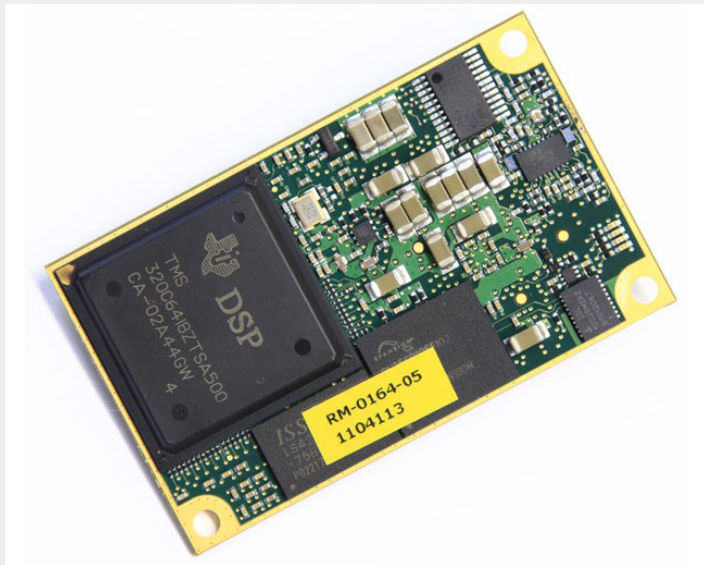


TC4 High-Speed High-Performance HF VHF Data Modem

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A compact, high-performance modem, the TC4 is intended for integration into LF and HF (VHF/UHF optional) radio transceivers and provides an optional 2G or 3G ALE controller. For users requiring a low cost hardware modem that includes all MIL-STD and STANAG compliant waveforms, the TC4 provides value and a robust solution.



Key Features

- ✓ Low cost installation (Hardware)
- ✓ Activation keys unlock software
- ✓ 9600 bps in SSB channel (3 kHz)
- ✓ 19200 bps in ISB channel (2 x 3 kHz)
- ✓ MIL-STD and STANAG compliance
- ✓ Low power consumption (1 W)
- ✓ Compact size (33x55x8mm)
- ✓ Single 100-way connector

Options

- ✓ 2G ALE
- ✓ 3G ALE
- ✓ 3G Packet Data
- ✓ V/UHF modem

Customisable Waveforms

TC4 waveforms can be customised by choosing from four LF/HF modem software options (M1-M4).

Data Modem Function

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Adaptive equalization mitigates the effects of channel multi-path. Convolutional encoding and soft-decision Viterbi decoding provides forward error correction.

Cancellation of narrowband co-channel interference is accomplished via adaptive tone excision capable of eliminating up to four signals.

PRIMARY INTERFACES*	USE	DETAILS
UART 1	Data, Config, Control, or Raw Data (option)	Rate: 4800 to 115200 bps Electrical: 3.3V LVTTTL Flow Control (Raw data only): CTS/RTS, XON/XOFF
UART 2	Remote Control (when UART1 is Raw Data)	Rate: 4800 to 115200 bps Electrical: 3.3V LVTTTL Flow Control: None
CODEC 1	Baseband Audio USB (Analogue)	Tx (output): 40 Ω unbalanced 2.0 V p-p Rx (input): 10 k Ω unbalanced 1.5 V p-p
CODEC 2	Baseband Audio LSB (Analogue)	Tx (output): 40 Ω unbalanced 2.0 V p-p Rx (input): 10 k Ω unbalanced 1.5 V p-p
MCBSP 0	Data, Config, Control (option)	Synchronous serial I/F McBSP port
MCBSP 1	Digital Baseband Audio (option)	Synchronous serial I/F McBSP port
DISCRETE OUTPUT	Radio Keyline	Active high
DISCRETE INPUTS	Radio PTT Sense	Active low
	PPS (GPS Time Sync.)	Rising edge
	Reset / Power Down	Active low
SPEED SELECT	Power Saving (Optional)	[3:0], Active low
POWER	Supply	3.3 V DC

* All TC4 interfaces via a single 100-way fine pitch connector (Samtec YFT-20-xx-H-05-SB).

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