

## SCT2400

### 2.4GHz Digital Voice and Data Transceiver

Licence Free Voice + Data



144-BGA (10mm x 10mm)

#### Features

- Highly integrated 2.4GHz spread spectrum radio transceiver
- Range optimised vocoder
- Digital voice modes
  - Peer to peer
  - Group Call
  - Broadcast
- Data Modes
  - Continuous SMS style data

#### Technical Features

- 12.5dBm RF Tx power
- Single 3V supply
- Low power consumption
  - ~10mA standby/scanning
  - ~52mA receive voice
  - ~64mA transmit voice
- 144-BGA package (10mm x 10mm)

#### Applications

- License Free 2.4GHz Voice + Data
- Intercoms
- Access control and gate entry
- Two-way radio, PMR/LMR
- Wearable communications
- Wireless headsets

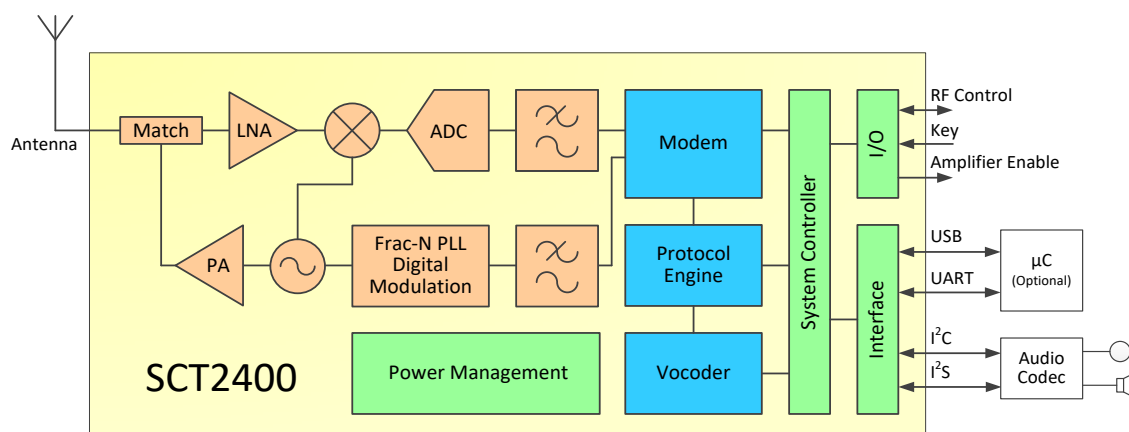
Until now the benefits of digital PMR/LMR have been restricted in unlicensed frequency bands due to regulatory restrictions or limited frequency allocations. Operating in the 2.4GHz ISM band the SCT2400 offers a comprehensive solution supporting near global usage without the need for complex licensing.

Capable of replacing unlicensed PMR/LMR solutions (FRS/MURS/GMRS/PMR446), the SCT2400 offers a rich set of features supporting not only secure digital voice operation but also wireless data capabilities. The SCT2400 also offers superior operating range over Wi-Fi based digital radio providing up to 30dB of additional sensitivity.

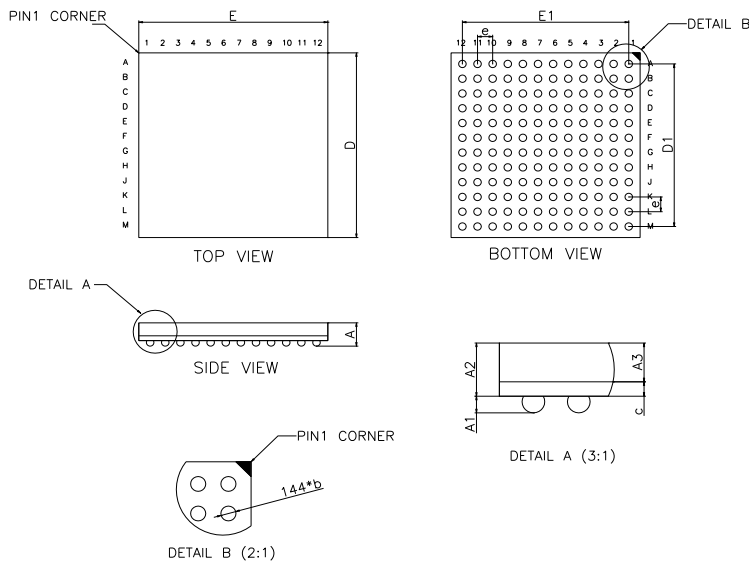
Range is further extended using voice coding technology with enhanced error correction that also maintains voice clarity and a high level of voice security under the most demanding RF environments. The internal power amplifier achieves 12.5dBm and an operational range up to 2km. Using an external FEM to achieve 100mW output power and -123dBm sensitivity, increases operational range to greater than 12km line of site.

In comparison to other licensed and unlicensed PMR solutions the SCT2400 operates on a fraction of the power in both receive and transmit, enabling significantly longer operating times or the use of smaller batteries that allows innovative small form factor solutions to be realised.

In addition to LMR/PMR the SCT2400 offers a low power, cost effective solution for all applications requiring digital voice or long range data transmission.



### Package



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	--	--	1.33
A1	0.25	0.30	0.35
A2	0.91	0.96	1.01
A3	0.7 BASIC		
c	0.22	0.26	0.30
D	9.90	10.00	10.10
D1	8.8 BASIC		
E	9.90	10.00	10.10
E1	8.8 BASIC		
e	0.8 BASIC		
b	0.35	0.40	0.45

### SCT2400 Key Values

Secure digital voice

- Peer to peer supporting up to 254 individual radios
- Group call supporting up to 32 groups
- Broadcast, all call

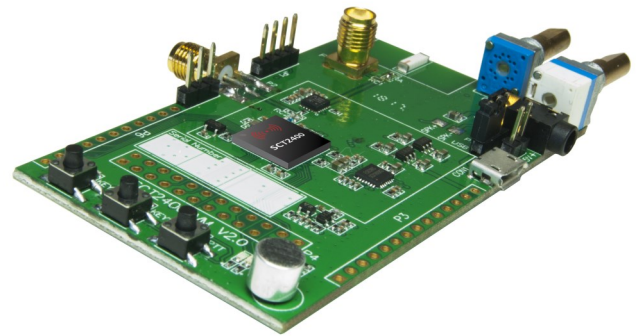
Secure data

- Short messaging up to 300 ASCII characters

-123dbm sensitivity

Low power operation

Small outline 10mm x 10mm 144-BGA package



SCT2400 Evaluation Module

### Ordering information:

- SCT2400HDA - 2.4GHz Digital Voice and Data Transceiver
- SCT2400EVM - Evaluation Module

Click here to view the online  
PRODUCT  
DATA RESOURCE

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