AVAQ

Digital Potentiometer 10kOhm 256POS Volatile Linear 16-Pin SOIC W

Manufacturer:	Maxim Integrated
Package/Case:	SOP
Product Type:	Data Conversion ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active

Images are for reference only

Inquiry

General Description

The MAX2140 complete receiver is designed for satellite digital audio radio services (SDARS). The device includes a fully monolithic VCO and only needs a SAW at the IF and a crystal to generate the reference frequency. To form a complete SDARS radio, the MAX2140 requires only a low-noise amplifier (LNA), which can be controlled by a baseband controller. The small number of external components needed makes the MAX2140-based platform the lowest cost and the smallest solution for SDARS. The receiver includes a self-contained RF AGC loop and baseband-controlled IF AGC loop, effectively providing a total dynamic range of over 92dB. Channel selectivity is ensured by the SAW filter and by on-chip monolithic lowpass filters. The fractional-N PLL allows a very small frequency step, making possible the implementation of an AFC loop. Additionally, the reference is provided by an external XTAL and on-chip oscillator. A reference buffer output is also provided. A 2-wire interface (I2C bus compatible) programs the circuit for a wide variety of conditions, providing features such as:

Programmable gains
Lowpass filters tuning
Individual functional block shutdown
The MAX2140 minimizes the requirement on the baseband controller. No compensation or calibration procedures are required. The device is available in a 7mm x 7mm 44-pin thin QFN package.

Key Features

Integrated Receiver, Requires Only One SAW Filter

Self-Contained RF AGC Loop

Differential I/Q Interface

Complete Integrated Frequency Generation

Bias Supply for External LNAs

Overcurrent Protection

Low-Power Standby Mode

Very Small 44-Pin Thin QFN Package

Application

2.4GHz ISM Radios

Satellite Digital Audio Radio Services (SDARS)

Recommended For You

DS1804U-100+	DS1881E-050+	DS1804Z-050+
Maxim Integrated	Maxim Integrated	Maxim Integrated
MSOP8	TSSOP16	SOP-8

DS3904U-020+	DS1804-100+	DS1804-010+
Maxim Integrated	Maxim Integrated	Maxim Integrated
MSOP8	DIP8	Correctoriginal

DS18030-010+	DS1807S+	DS1809-010+
Maxim Integrated	Maxim Integrated	Maxim Integrated
SMDSMT	SOP16	franchised

DS3902U-530+	DS1856B-050/T&R	DS3930E+T&R
Maxim Integrated	Maxim Integrated	Maxim Integrated
MSOP8	CSBGA-1	TSSOP-20

DS1806E-050+	DS1856B-020+	DS1841N+
Maxim Integrated	Maxim Integrated	Maxim Integrated
TSSOP20	CSBGA	10TDFN-EP