

AFE General Purpose 30-Pin DSBGA T/R

Manufacturer: [Texas Instruments, Inc](#)

Package/Case: DSBGA

Product Type: Data Conversion ICs

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active



Images are for reference only

[Inquiry](#)

General Description

Key Features

Transmitter:

Supports Common Anode LED Configuration

Dynamic Range: 100 dB

8-Bit Programmable LED Current to 50 mA
(Extendable to 100 mA)

Programmable LED On-Time

Simultaneous Support of 3 LEDs for Optimized
SpO₂, HRM, or Multi-Wavelength HRM

Receiver:

Supports 2 Time-Multiplexed Photodiode
Inputs

24-Bit Representation of the Current Input from
the Photodiode in Twos Complement Format

Individual DC Offset Subtraction DAC
(±15.75-μA Range) at TIA Input for Each LED,
Ambient

Digital Ambient Subtraction at ADC Output

Transimpedance Gain: 10 kΩ to 2 MΩ

Dynamic Range: 100 dB

Dynamic Power-Saving Mode to Reduce
Receiver Current to 200 μA

Pulse Frequency: 5 SPS to 1000 SPS

Flexible Pulse Sequencing and Timing Control

Flexible Clock Options:

External Clocking:
4-MHz to 60-MHz Input Clock

Internal Clocking: 4-MHz Oscillator

FIFO with 240 Sample Depth:
Programmable Partitioning Across Phases

I²C, SPI™ Interfaces: Selectable by Pin

Operating Temperature Range: -20°C to +70°C

2.6-mm × 2.1-mm DSBGA, 0.4-mm Pitch

Supplies: Rx: 2 V to 3.6 V, Tx: 3 V to 5.25 V,
IO: 1.8 V to 3.6 V

Recommended For You

AFE5807ZCF

Texas Instruments, Inc
BGA

AFE1205E

Texas Instruments, Inc
XX

AFE1104E

Texas Instruments, Inc
SSOP

AFE2124E

Texas Instruments, Inc
SSOP48

AFE4300PNR

Texas Instruments, Inc
LQFP80

AFE1103E

Texas Instruments, Inc
SSOP

AFE5818ZBV

Texas Instruments, Inc
BGA

AFE4403YZPT

Texas Instruments, Inc
DSBGA36

AFE4403YZPR

Texas Instruments, Inc
DSBGA36

AFE4404YZPR

Texas Instruments, Inc
DSBGA15

AFE4400RHAT

Texas Instruments, Inc
VQFN40

AFE4490RHAT

Texas Instruments, Inc
QFN

AFE4404YZPT

Texas Instruments, Inc
DSBGA15

AFE5808AZCF

Texas Instruments, Inc
BGA

AFE5812ZCF

Texas Instruments, Inc
BGA135