D3 Embedded mmWave Radar Catalog

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D3 MODEL NUMBER	TEXAS INSTRUMENTS MMWAVE IC	ANTENNA CONFIG	FORM FACTOR	SKU / ENCLOSED SKU	DESIGN AVAILABLE FOR CUSTOMIZATION	BAND	AGENCY CERTIFICATIONS	AUTOMOTIVE QUALIFICATION AVAILABLE	VOLUME PRICING	INTERFACES					
										LVDS	MIPI CSI-2	USB-SERIAL	LV UART	RS-485	CAN-FD/CAN
RS-L6432V*	IWRL6432	AOF (Antenna on Fiberglass)	Mighty (1" x 1.5" Board)	3010115 / 3010148	✓	60 GHz	FCC/ISED Single Modular		< $100			✓USB-C			
RS-L6432S*				3010137	✓	60 GHz	FCC/ISED Single Modular		< $100				✓9-PinMolex Picoblade	Pending 9-PinMolex Picoblade	
RS-6843AOPS*	IWR6843AOP	AOP (Antenna on Package)		TBD	✓	60 GHz	FCC/ISED Limited Modular		< $200				✓9-PinMolex Picoblade	Pending 9-PinMolex Picoblade	
RS-L6844C*	AWRL6844	AOF (Antenna on Fiberglass)		TBD	✓	60 GHz	Evaluation Kit		< $200				✓4-pin 0.050" Header		✓4-PinMolex Picoblade
RS-1843A*	AWR1843	AOC (Antenna on Ceramic)	Flex (2" x 3" Board)	1001105 / 3010038	✓	77 GHz	Evaluation Kit	✓	< $200	✓		✓USB-C			✓4-PinMolex Picoblade
RS-2944A*	AWR2944			3010036 / 3010039	✓	77 GHz	Evaluation Kit	✓	< $200		✓	✓USB-C			✓4-PinMolex Picoblade
RS-6843*	IWR6843			1001631	✓	60 GHz	Evaluation Kit		< $200	✓		✓USB-C			✓4-PinMolex Picoblade
RS-1843AOPU*	AWR1843AOP	AOP (Antenna on Package)	Mini (1" x 1" x 0.5" Heatsink Frame)	1002141	✓	77 GHz	Evaluation Kit	✓	< $200			✓USB-C			
RS-1843AOPC*				1002094	✓	77 GHz	FCC/ISED	✓	< $200				✓4-pin 0.050" Header		✓4-PinMolex Picoblade
RS-6843AOPU*	IWR6843AOP			1002143 / 3010058	✓	60 GHz	Evaluation Kit		< $200			✓USB-C			
RS-6843AOPC*				1002137	✓	60 GHz	FCC/ISED		< $200				✓4-pin 0.050" Header		✓4-PinMolex Picoblade
RS-6843AOPUA	AWR6843AOP			TBD	✓	60 GHz	Evaluation Kit	✓	< $200			✓USB-C			
RS-6843AOPCA				TBD	✓	60 GHz	Evaluation Kit	✓	< $200				✓4-pin 0.050" Header		✓4-PinMolex Picoblade
RS-L6432U	IWRL6432	AOF (Antenna on Fiberglass)		1002048	✓	60 GHz	Evaluation Kit		< $150			✓USB-C			
RS-L6432C				TBD	✓	60 GHz	Evaluation Kit		< $150						✓4-PinMolex Picoblade
RS-L1432U	AWRL1432			3010020	✓	77 GHz	Evaluation Kit	✓	< $150			✓USB-C			
RS-L1432C				TBD	✓	77 GHz	Evaluation Kit	✓	< $150						✓4-PinMolex Picoblade
RS-1243A	AWR1243	AOC (Antenna on Ceramic)	Starter Kit (2-Board Stack)	1000770	✓	77 GHz	Evaluation Kit	✓	< $150		✓				
RS-1443A	AWR1443			1000529	✓	77 GHz	Evaluation Kit	✓	< $150		✓	✓Micro USB-B			✓4-PinMolex Duraclik

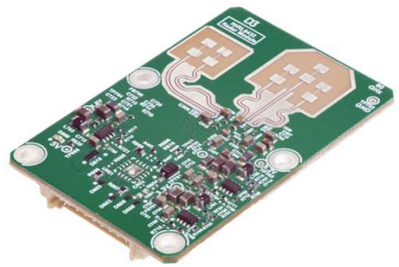
* Stocked Item

DesignCore® Platforms: Texas Instruments mmWave Radar

DesignCore® Mighty Series mmWave Radar Sensors

RS-L6432V Radar Sensor

FCC/ISED Single Modular
3 RX, 2 TX Antenna on Fiberglass
Up to 50 m
Presence, Motion, People Tracking
1.5” x 1” Single-Board Form Factor
Low Power 60 GHz Radar
160 MHz Arm Cortex-M4F and Hardware Accelerator
USB/Serial Interface
Sealed Radome Enclosure Available



RS-L6432S/D Radar Sensor

FCC/ISED Single Modular
3 RX, 2 TX Antenna on Fiberglass
Up to 50 m
Presence, Motion, People Tracking
1.5” x 1” Single-Board Form Factor
Low Power 60 GHz Radar
160 MHz Arm Cortex-M4F and Hardware Accelerator
LV UART (S) or RS-485 (D) Interface

RS-6843AOPS/D Radar Sensor

FCC/ISED Limited Modular
4 RX, 3 TX Antenna on Package
Up to 200 m
Presence, Motion, People Tracking
Inclinometer available
1.5” x 1” Single-Board Form Factor
Low Power 60 GHz Radar
200 MHz Arm Cortex-R4F, 600MHz C674x DSP
Hardware Accelerator
LV UART (S) or RS-485 (D) Interface

RS-L6844C Radar Sensor

4 RX, 4 TX Antenna on Fiberglass
Up to 200 m
In-Cabin, Presence, Motion, People Tracking
3-Axis Accelerometer
1.5” x 1” Single-Board Form Factor
Low Power 60 GHz Radar
200 MHz Arm Cortex-R4F
450 MHz C66x DSP
Hardware Accelerator
CAN FD Interface

DesignCore® Platforms: Texas Instruments mmWave Radar

DesignCore® Flex Series mmWave Radar Sensors

RS-2944A Radar Sensor

4 RX, 4 TX Antenna on Ceramic
Up to 300 m
Corner and Front Automotive Radar
3” x 2” Single-Board Form Factor
Higher Performance 77 GHz Radar
300 MHz Arm Cortex-R5F MCU
360 MHz C66x DSP
Hardware Accelerator
USB/Serial and CAN bus Interface

RS-6843 Radar Sensor

4 RX, 3 TX Antenna on Ceramic
Up to 300 m
Long Range People Tracking
3” x 2” Single-Board Form Factor
High Performance 60 GHz Radar
200 MHz Arm Cortex-R4F
600MHz C674x DSP
Hardware Accelerator
USB/Serial and CAN bus Interface

RS-1843A Radar Sensor

4 RX, 3 TX Antenna on Ceramic
Up to 300 m
Corner and Front Automotive Radar
3” x 2” Single-Board Form Factor
High Performance 77 GHz Radar
200 MHz Arm Cortex-R4F
600MHz C674x DSP
Hardware Accelerator
with USB/Serial and CAN bus Interface

Radome Enclosures

Automotive / Industrial
With USB Interface
Off the Shelf for 77 GHz
60 GHz special order
Customization Available

DesignCore® Platforms: Texas Instruments mmWave Radar

DesignCore® Mini AOP Series mmWave Radar Sensors

RS-6843AOPU Radar Sensor
RS-6843AOPC Radar Sensor
FCC/ISED for CANbus version
4 RX, 3 TX Antenna on Package
Up to 200 m
Presence, Motion, People Tracking
1” Cube Form Factor
High Performance 60 GHz Radar
200 MHz Arm Cortex-R4F
600 MHz C674x DSP
Hardware Accelerator
USB/Serial (U) or CANbus (C) Interface

RS-1843AOPU Radar Sensor
RS-1843AOPC Radar Sensor
FCC/ISED for CANbus version
4 RX, 3 TX Antenna on Package
Up to 200 m
Presence, Motion, People Tracking
1” Cube Form Factor
High Performance 77 GHz Radar
200 MHz Arm Cortex-R4F
600 MHz C674x DSP
Hardware Accelerator
USB/Serial (U) or CANbus (C) Interface

Radome Enclosures
Automotive / Industrial
With USB Interface
Customization Available

Customization Options

The D3 Embedded radar team applies our expertise in hardware, software, and algorithm design to your unique use case.

Radar Platform Options

- Antenna on Ceramic, Package, or Fiberglass
- Environmentally Sealed Radomes
- 60 GHz and 77 GHz
- TI IWR/AWR 1843, 6843, 1642, x243, 294x, AOP, etc.
- UART, CAN, SPI, I2C, LVDS, MIPI CSI-2, Ethernet Interfaces

Radar Algorithms

- Vision/Radar Fusion
- Advanced Driver Assistance Systems
- Vehicle Guidance and Collision Avoidance
- Industrial vehicles and robotics
- Gesture Control and Vital Signs Monitoring
- People Detection and Tracking
- Personnel Safety
- Ranging and Speed Sensing