	REVISIONS						
LTR	DESCRIPTION	DATE	APPROVED				
A	Add AIN, AIN, CLK and CLK parameters to paragraph 1.3. Update document paragraphs to reflect current requirements ro	14-09-10	C. SAFFLE				
В	Make clarification to Voltage difference limits as specified under paragraph 1.3. Update document paragraphs to current requirements ro	20-05-27	J. ESCHMEYER				



CURRENT DESIGN ACTIVITY CAGE CODE 16236 HAS CHANGED NAMES TO: DLA LAND AND MARITIME COLUMBUS, OHIO 43218-3990

Prepared in accordance with ASME Y14.24 Vendor item drawing REV PAGE REV в В В PAGE 18 19 20 REV В В В В В В В В В В В В В В В В В **REV STATUS OF PAGES** PAGE 2 3 4 5 7 17 1 6 8 9 10 11 12 13 14 15 16 PREPARED BY **DEFENSE SUPPLY CENTER COLUMBUS** PMIC N/A **RICK OFFICER** COLUMBUS, OHIO 43218-3990 Original date of drawing CHECKED BY TITLE YY-MM-DD TOM HESS MICROCIRCUIT, DIGITAL-LINEAR, 12-BIT, 06-12-22 APPROVED BY 500 MSPS, ANALOG-TO-DIGITAL CONVERTER, RAYMOND MONNIN MONOLITHIC SILICON CODE IDENT. NO. SIZE DWG NO. V62/07607 16236 Α REV **PAGE** 1 **OF** 20 В

AMSC N/A

### 1. SCOPE

1.1 <u>Scope</u>. This drawing documents the general requirements of a high performance 12-bit, 500 MSPS analog to digital converter microcircuit, with an operating temperature range of -55°C to +125°C.

1.2 <u>Vendor Item Drawing Administrative Control Number</u>. The manufacturer's PIN is the item of identification. The vendor item drawing establishes an administrative control number for identifying the item on the engineering documentation:

	<u>V62/07607</u>	- <u>01</u>	<u> </u>	<u> </u>	
	Drawing	Device type	Case outline	Lead finish	
	number	(See 1.2.1)	(See 1.2.2)	(See 1.2.3)	
1.2.1 <u>Device</u>	<u>type(s)</u> .				
	Device type	<u>Generic</u>		Circuit function	
	01	ADS5463-EP	12 bit, 500	MSPS, analog to digital converter	
4 0 0 0					

1.2.2 <u>Case outline(s)</u>. The case outline(s) are as specified herein.

<u>Outline letter</u>	Number of pins	JEDEC PUB 95	Package style
Х	80	MS-026	Plastic quad flat pack with thermal pad

1.2.3 Lead finishes. The lead finishes are as specified below or other lead finishes as provided by the device manufacture:

Finish designator	Material
А	Hot solder dip
В	Tin-lead plate
С	Gold plate
D	Palladium
E	Gold flash palladium
F	Tin-lead alloy (BGA/CGA)
Z	Other

DEFENSE SUPPLY CENTER, COLUMBUS	SIZE	CODE IDE	ENT NO.	). DWG NO. <b>V62/07607</b>		
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1.3 <u>Absolute maximum ratings</u> . <u>1</u> /	
Supply voltage :	
AVDD5 to GND	6 V
AVDD3 to GND	5 V
DVDD3 to GND Voltage difference between pin and ground:	5 V
AIN, AIN to GND: 2/	
AC signal	0.3 V to (AVDD5 + 0.3 V)
DC signal. TJ = 105°C	0.4 V to 4.4 V
DC signal, TJ = 125°C Voltage difference between these pins:	1.0 V to 3.8 V
AIN to AIN : <u>2/</u> AC signal	-5.2 V to 5.2 V
DC signal, TJ = 105°C	4 V to 4 V
DC signal, TJ = 125°C Voltage difference between pin and ground:	-2.8 V to 2.8 V
CLK, CLK to GND: 2/	
AC signal	-0.3 V to (AVDD5 + 0.3 V)
DC signal, TJ = 105°C	0.1 V to 4.7 V
DC signal, TJ = 125°C	1.1 V to 3.7 V
Voltage difference between these pins:	
CLK to $\overline{\text{CLK}}$ : $\underline{2}/$	
AC signal	-3.3 V to 3.3 V
DC signal, TJ = 105°C	-3.3 V to 3.3 V
DC signal, TJ = 125°C	-2.6 V to 2.6 V
Digital data output to GND	-0.3 V to DVDD3 + 0.3 V
Maximum junction temperature (TJ)	+150°C
Storage temperature range (TSTG)	65°C to 150°C
Electrostatic discharge (ESD) human body model (HBM)	2 kV

<u>1</u>/ Stresses beyond those listed under "absolute maximum rating" may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated under "recommended operating conditions" is not implied. Exposure to absolute-maximum-rated conditions for extended periods may affect device reliability.

2/ Valid when supplies are within recommended operating range.

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### 1.4 Recommended operating conditions. 3/

Supplies:	
Analog supply voltage (AVDD5)	4.75 V to 5.25 V
Analog supply voltage (AVDD3)	3 V to 3.6 V
Output driver supply voltage (DVDD3)	3 V to 3.6 V
Differential input range	2.2 VPP typical
Input common mode voltage (VCM)	2.4 V typical
Digital output: (DRY, DATA, OVR)	
Maximum differential output load	10 pF typical
Clock input:	
CLK input sample rate (sine wave)	20 MSPS to 500 MSPS
Clock amplitude, differential sine wave	3 VPP typical
Clock duty cycle	50 % typical
Operating free-air temperature range (TA)	55°C to +125°C

### 1.5 Thermal characteristics. 4/

Parameter Test conditions		Typical limits
RθJA <u>5</u> /	Soldered thermal pad, no airflow	23.7°C/W
RθJA <u>5</u> /	Soldered thermal pad, 150 LFM airflow	17.8°C/W
RθJA <u>5</u> /	Soldered thermal pad, 250 LFM airflow	16.4°C/W
RθJP <u>6</u> /	Bottom of package (thermal pad)	2.99°C/W

<u>3</u>/ Use of this product beyond the manufacturers design rules or stated parameters is done at the user's risk. The manufacturer and/or distributor maintain no responsibility or liability for product used beyond the stated limits.

 $\underline{4}$ / Using 36 thermal vias (6 x 6 array).

<u>5</u>/  $R_{\theta}JA$  is the thermal resistance from junction to ambient.

 $\underline{6}$  R<sub>0</sub>JP is the thermal resistance from junction to the thermal pad.

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### 2. APPLICABLE DOCUMENTS

JEDEC Solid State Technology Association

JEDEC PUB 95 - Registered and Standard Outlines for Semiconductor Devices

(Copies of these documents are available online at https://www.jedec.org.)

### 3. REQUIREMENTS

3.1 <u>Marking</u>. Parts shall be permanently and legibly marked with the manufacturer's part number as shown in 6.3 herein and as follows:

- A. Manufacturer's name, CAGE code, or logo
- B. Pin 1 identifier
- C. ESDS identification (optional)

3.2 <u>Unit container</u>. The unit container shall be marked with the manufacturer's part number and with items A and C (if applicable) above.

3.3 <u>Electrical characteristics</u>. The maximum and recommended operating conditions and electrical performance characteristics are as specified in 1.3, 1.4, and table I herein.

3.4 <u>Design, construction, and physical dimension</u>. The design, construction, and physical dimensions are as specified herein.

3.5 Diagrams.

3.5.1 <u>Case outline</u>. The case outline shall be as shown in 1.2.2 and figure 1.

3.5.2 Terminal connections. The terminal connections shall be as shown in figure 2.

3.5.3 Block diagram. The block diagram shall be as shown in figure 3.

3.5.4 Timing waveforms. The timing waveforms shall be as shown in figure 4.

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Test	Symbol	Conditions <u>2</u> /	Temperature, TA	Device type	Lir	Limits	
					Min	Max	
Resolution			+25°C	01	12 ty	/pical	Bits
Analog inputs section	·						
Differential input range			+25°C	01	2.2 t	ypical	VPP
Input common mode	Vсм		+25°C	01	2.4 t	ypical	V
Input resistance (dc)		Each input to ground	+25°C	01	500 t	ypical	Ω
Input capacitance		Each input to ground	+25°C	01	2.5 t	ypical	pF
Analog input bandwidth (-3 dB)		Dependent on source impedance	+25°C	01	2 ty	pical	GHz
Common mode rejection ratio	CMRR	Common mode signal = 10 MHz	+25°C	01	80 typical		dB
Internal reference voltage	e section						
Reference voltage	VREF		+25°C	01	2.4 t	ypical	V
Dynamic accuracy section	on						
No missing codes					Ass	ured	
Differential linearity error	DNL	fin = 10 MHz	-55°C to +125°C	01	-0.95	0.95	LSB
Integral linearity error	INL	fin = 10 MHz	-55°C to +125°C	01	-2.5	2.5	LSB
Offset error			-55°C to +125°C	01	-11	11	mV
Offset temperature coefficient			+25°C	01	0.0005	typical	mV/°C
Gain error			-55°C to +125°C	01	-5.2	5.2	%FS
Gain temperature coefficient			+25°C	01	-0.02	typical	∆%/°C
Power supply rejection ratio	PSRR	100 kHz supply noise, see figure 5	+25°C	01	85 ty	/pical	dB

### TABLE I. Electrical performance characteristics. 1/

DEFENSE SUPPLY CENTER, COLUMBUS	SIZE	CODE	E IDENT NO.	DW0	G NO.
COLUMBUS, OHIO	A		<b>16236</b>	<b>V62/</b>	<b>07607</b>
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Test	Symbol	Conditions <u>2</u> /	Temperature, TA	Device type	Lin	Limits	
					Min	Max	
Power supply section							
5 V analog supply current	IAVDD5	VIN = full scale, fIN = 10 MHz, fs = 500 MSPS	-55°C to +125°C	01		365	mA
3.3 V analog supply current	IAVDD3	VIN = full scale, fIN = 10 MHz, fs = 500 MSPS	-55°C to +125°C	01		145	mA
3.3 V digital supply current	IDVDD3	VIN = full scale, fIN = 10 MHz, fs = 500 MSPS	-55°C to +125°C	01		92	mA
Total power dissipation	PD		-55°C to +125°C	01		2.575	W
Power up time			+25°C	01	200 typical		μs
Dynamic AC characterist	ics section		·				
Signal-to-noise ratio	SNR	fin = 10 MHz	+25°C	01	65.3 typical		dBFS
		fin = 70 MHz	+25°C		65.4 1	typical	
		fin = 100 MHz	+25°C		63.5		
			-55°C to +125°C		63		
		fin = 230 MHz	+25°C		65.11	typical	
		fin = 300 MHz	+25°C		63.25		
			-55°C to +125°C		61.75		
		fin = 450 MHz	+25°C		64.61	typical	
		fin = 650 MHz	+25°C	]	63.91	typical	
		fin = 900 MHz	+25°C	]	62.61	typical	
		fIN = 1.3 GHz	+25°C	]	59.3 1	typical	

TABLE I.	Electrical	performance	characteristics	- Continued.	1/
	Electroal	oononnanoo	onaraotonotico	oonanaoa.	<u> </u>

DEFENSE SUPPLY CENTER, COLUMBUS	SIZE	CODE IDENT NO.	DWG NO. <b>V62/07607</b>
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Test	Symbol	Conditions <u>2</u> /	Temperature, TA	Device type	Limits		Unit
					Min	Max	
Dynamic AC characterist	Dynamic AC characteristics section - continued.						
Spurious free dynamic range	SFDR	fin = 10 MHz	+25°C	01	85 ty	85 typical	
		fin = 70 MHz	+25°C		82 ty	/pical	
		fin = 100 MHz	+25°C		70		
			-55°C to +125°C		67		
		fin = 230 MHz	+25°C		78 typical		
		fin = 300 MHz	+25°C		64		
			-55°C to +125°C		62		
		fin = 450 MHz	+25°C		75 typical		
		f <sub>IN</sub> = 650 MHz	+25°C		65 ty	/pical	
		fin = 900 MHz	+25°C		56 ty	/pical	
		f <sub>IN</sub> = 1.3 GHz	+25°C		45 ty	/pical	
Second harmonic	HD2	fin = 10 MHz	+25°C	01	87 ty	/pical	dBc
		fin = 70 MHz	+25°C		82 ty	/pical	
		fin = 100 MHz	-55°C to +125°C		67		
		fin = 230 MHz	+25°C		81 ty	/pical	
		fin = 300 MHz	-55°C to +125°C		62.5		
		fin = 450 MHz	+25°C		80 ty	/pical	
		fin = 650 MHz	+25°C		77 ty	/pical	
		fin = 900 MHz	+25°C		66 typical		]
		fin = 1.3 GHz	+25°C		50 ty	/pical	

## TABLE I. Electrical performance characteristics – Continued. 1/

DEFENSE SUPPLY CENTER, COLUMBUS	SIZE	CODE IDENT NO.	DWG NO. V62/07607
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Test	Symbol	Conditions <u>2</u> /     Temperature, TA     Device     I		Lin	nits	Unit	
					Min	Min Max	
Dynamic AC characterist	tics section	– continued.					
Third harmonic	HD3	fin = 10 MHz	+25°C	01	85 typical		dBc
		fin = 70 MHz	+25°C		90 ty	/pical	
		fin = 100 MHz	-55°C to +125°C		67.5		
		fin = 230 MHz	+25°C		90 typical		
		fin = 300 MHz	-55°C to +125°C		63		
		fin = 450 MHz	+25°C	75 typical			
		fin = 650 MHz	+25°C		65 typical		
		fin = 900 MHz	+25°C	-	56 typical		
		fIN = 1.3 GHz	+25°C		45 ty	/pical	
Worst harmonic/spur	HD3	fin = 10 MHz	+25°C	01	86 typical		dBc
HD3)		fin = 70 MHz	+25°C		86 typical		
		fin = 100 MHz	+25°C		86 typical		
		fin = 230 MHz	+25°C		77 typical 81 typical		-
		fin = 300 MHz	+25°C				
		fin = 450 MHz	+25°C		86 ty	/pical	
		fin = 650 MHz	+25°C		85 typical 78 typical		
		fin = 900 MHz	+25°C				1
		fin = 1.3 GHz	+25°C		67 typical		

# TABLE I. Electrical performance characteristics – Continued. $\underline{1}/$

DEFENSE SUPPLY CENTER, COLUMBUS	SIZE	CODE IDENT NO.	DWG NO. <b>V62/07607</b>
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Test	Symbol	Conditions <u>2</u> /	Temperature, TA	Device type	Lin	Limits	
					Min	Max	
Dynamic AC characterist	ics section ·	– continued.					
Total harmonic	THD	fin = 10 MHz	+25°C	01	80 ty	80 typical	
		fin = 70 MHz	+25°C	79 typical			
		fin = 100 MHz	+25°C		77 typical		
		fin = 230 MHz	+25°C		75 typical		
		fin = 300 MHz	+25°C		73 typical		
		fin = 450 MHz	+25°C		73 typical		
		fin = 650 MHz	+25°C		64 typical		
		fin = 900 MHz	+25°C		55 typical 44 typical		
		fin = 1.3 GHz	+25°C				
Signal-to-noise and	SINAD	fin = 10 MHz	+25°C	01	65.2 t	ypical	dBc
		fin = 70 MHz	+25°C		65.2 t	ypical	
		fin = 100 MHz	-55°C to +125°C		62		-
		fin = 230 MHz	+25°C		64.7 t	ypical	
		fin = 300 MHz	-55°C to +125°C		58.75		
		fin = 450 MHz	+25°C		64.1 typical		
		fin = 650 MHz	+25°C		61.5 typical		
		fin = 900 MHz	+25°C		55.4 typical		
		fin = 1.3 GHz	+25°C		45.1 typical		

TABLE I.	Electrical	performance	characteristics	- Continued.	1/
					_

DEFENSE SUPPLY CENTER, COLUMBUS	SIZE	CODE IDENT NO.	DWG NO. <b>V62/07607</b>
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Test	Symbol	Conditions <u>2</u> /	Temperature, TA	Device type	Lir	Limits	
					Min	Max	
Dynamic AC characterist	ics section	– continued.					
Two-tone SFDR		fIN1 = 65 MHz, fIN2 = 70 MHz, each tone at -7 dBFS	+25°C	01	90 ty	/pical	dBc
		fIN1 = 65 MHz, fIN2 = 70 MHz, each tone at -16 dBFS	+25°C		89 ty	/pical	
		fIN1 = 350 MHz, fIN2 = 355 MHz, each tone at -7 dBFS	+25°C		82 ty	/pical	
		fIN1 = 350 MHz, fIN2 = 355 MHz, each tone at -16 dBFS	+25°C		89 ty	/pical	
Effective number of bits	ENOB	fin = 100 MHz	-55°C to +125°C	01	9.9		Bits
		fin = 300 MHz	+25°C		10.4	typical	
RMS idle channel noise		Inputs tied to common mode	+25°C	01	0.7 typical		LSB
Low voltage differential s	ignaling (L\	/DS) digital outputs characteristics sect	ion				
Differential output voltage (±)	VOD		+25°C	01	247	454	mV
Common mode output voltage	Voc		-55°C to +125°C	01	1.125	1.375	V
Timing characteristics se	ction	<u>3</u> /			•		
Aperture delay	tA		+25°C	01	200 t	ypical	ps
Aperture jitter, rms			+25°C	01	160 t	ypical	fs
Latency			+25°C	01	3.5 typical		Cycles
Clock period	tCLK		-55°C to +125°C	01	2		ns
Clock pulse duration, high	<b>tCLKH</b>		-55°C to +125°C	01	1		ns
Clock pulse duration, low	<b>tCLKL</b>		-55°C to +125°C	01	1		ns

### TABLE I. Electrical performance characteristics - Continued. 1/

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Test	Symbol	Conditions <u>2</u> /	Temperature, TA	Temperature, Device TA type		Limits	
					Min	Max	
Timing characteristics se	ction – cont	inued. <u>3</u> /					
CLK to DRY delay <u>4</u> /	tDRY	Zero crossing, 7 pF differential loading	+25°C	01	1100 typical		ps
CLK to DATA/OVR <u>4</u> / delay	tDATA	Zero crossing, 7 pF differential loading	+25°C	01	1100 typical		ps
DRY to DATA skew	tskew	tDATA - tDRY, 7 pF differential loading	+25°C	01	0 typical		ps
DRY/DATA/OVR rise time	tRISE	7 pF differential loading	+25°C	01	500 typical		ps
DRY/DATA/OVR fall time	tFALL	7 pF differential loading	+25°C	01	500 typical		ps

### TABLE I. Electrical performance characteristics - Continued. 1/

<u>1</u>/ Testing and other quality control techniques are used to the extent deemed necessary to assure product performance over the specified temperature range. Product may not necessarily be tested across the full temperature range and all parameters may not necessarily be tested. In the absence of specific parametric testing, product performance is assured by characterization and/or design.

- Unless otherwise specified, sampling rate = 500 MSPS, 50 % clock duty cycle, AVDD5 = 5 V, AVDD3 = 3.3 V, DVDD3 = 3.3 V,
   -1 dbFS differential input, and 3 VPP differential clock.
- <u>3</u>/ Timing parameters assured by design or characterization, but not production tested.
- 4/ DRY, DATA, and OVR are updated on the falling edge of CLK. The latency must be added to t<sub>DATA</sub> to determine the data propagation delay.

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FIGURE 1. Case outline.

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#### Case X - continued

	Dimensions				
Symbol	Inch	ies	Millim	neters	
	Min	Max	Min	Max	
А		0.047		1.20	
A1	0.037	0.041	0.95	1.05	
A2	0.009		0.25		
A3	0.001	0.005	0.05	0.15	
b	0.006	0.010	0.17	0.27	
С	0.005 n	ominal	0.13 nominal		
D	0.543	0.559	13.80	14.20	
D1	0.464	0.480	11.80	12.20	
D2	0.037		0.95		
е	0.019	BSC	0.50	BSC	
E	0.543	0.559	13.80	14.20	
E1	0.464	0.480	11.80	12.20	
E2	0.037		0.95		
L	0.017	0.029	0.45	0.75	

NOTES:

- 1. Controlling dimensions are millimeter, inch dimensions are given for reference only.
- 2. Body dimensions do not include mold flash or protrusion.

3. This package is designed to be soldered to a thermal pad on the board. Refer to technical brief, power pad thermally enhanced package, manufacturer's literature number SLMA002 for information regarding recommended board layout. The vendor datasheet is available from the manufacturer.

4. Falls within JEDEC MS-026.

FIGURE 1. <u>Case outline</u> – continued.

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Device type			01				
Case outline			Х				
Terminal number	Terminal symbol	Terminal number	Terminal symbol	Terminal number	Terminal symbol	Terminal number	Terminal symbol
1	DVDD3	21	AVDD5	41	OVR	61	D4
2	GND	22	GND	42	OVR	62	D4
3	AVDD5	23	AVDD5	43	NC	63	D5
4	NC	24	GND	44	NC	64	D5
5	NC	25	AVDD5	45	NC	65	GND
6	VREF	26	GND	46	NC	66	DVDD3
7	GND	27	AVDD5	47	NC	67	D6
8	AVDD5	28	GND	48	NC	68	D6
9	GND	29	RESERVED	49	NC	69	D7
10	CLK	30	GND	50	NC	70	D7
11	CLK	31	AVDD5	51	DVDD3	71	D8
12	GND	32	GND	52	GND	72	D8
13	AVDD5	33	RESERVED	53		73	D9
14	AVDD5	34	GND	54	D0	74	D9
15	GND	35	AV <sub>DD3</sub>	55	D1	75	D10
16	AIN	36	GND	56	D1	76	D10
17	AIN	37	AVDD3	57	D2	77	D11 (MSB)
18	GND	38	GND	58	D2	78	D11 (MSB)
19	AVDD5	39	AVDD3	59	D3	79	DRY
20	GND	40	GND	60	D3	80	DRY

NC = No connection

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Terminal symbol	Description
AIN	Differential input signal (positive).
AIN	Differential input signal (negative).
AVDD5	Analog power supply (5 V).
AVDD3	Analog power supply (3.3 V). (Suggestion for $\leq$ 250 MSPS: leave option to connect to 5 V for ADS5440/4 compatibility).
DVDD	Output driver power supply (3.3 V).
GND	Ground.
CLK	Differential input clock (positive). Conversion initiated on rising edge.
CLK	Differential input clock (negative).
D0, <del>D</del> 0	LVDS digital output pair, least-significant bit (LSB).
D1 – D10, D1 - D10	LVDS digital output pairs.
D11, D11	LVDS digital output pair, most significant bit (MSB).
DRY, DRY	Data ready LVDS output pair.
NC	No connect. Pins 4 and 5 should be left floating, pins 43 – 50 are possible future bit additions for this pin out and therefore can be connected to a digital bus or left floating.
	Over range indicator LVDS output. A logic high signals an analog input in excess of the full-scale range.
RESERVED	Pin 29 reserved for possible future VCM output for this pinout; pin 33 is reserved for possible future power down control pin for this pinout.
VREF	Reference voltage.

FIGURE 2. <u>Terminal connections</u> – continued.

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FIGURE 3. Block diagram.

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FIGURE 4. Timing waveforms.

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FIGURE 5. PSRR versus supply injected frequency.

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COLUMBUS, OHIO	A	1	16236	<b>V62/(</b>	<b>)7607</b>
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### 4. VERIFICATION

4.1 <u>Product assurance requirements</u>. The manufacturer is responsible for performing all inspection and test requirements as indicated in their internal documentation. Such procedures should include proper handling of electrostatic sensitive devices, classification, packaging, and labeling of moisture sensitive devices, as applicable.

### 5. PREPARATION FOR DELIVERY

5.1 <u>Packaging</u>. Preservation, packaging, labeling, and marking shall be in accordance with the manufacturer's standard commercial practices for electrostatic discharge sensitive devices.

### 6. NOTES

6.1 <u>ESDS</u>. Devices are electrostatic discharge sensitive and are classified as ESDS class 1 minimum.

6.2 <u>Configuration control</u>. The data contained herein is based on the salient characteristics of the device manufacturer's data book. The device manufacturer reserves the right to make changes without notice. This drawing will be modified as changes are provided.

6.3 <u>Suggested source(s) of supply</u>. Identification of the suggested source(s) of supply herein is not to be construed as a guarantee of present or continued availability as a source of supply for the item. DLA Land and Maritime maintains an online database of all current sources of supply at <u>https://landandmaritimeapps.dla.mil/Programs/Smcr/</u>.

Vendor item drawing administrative control number <u>1</u> /	Device manufacturer CAGE code	Package <u>2</u> / lead	Mode of transportation and quantity	Package marking	Vendor part number
V62/07607-01XE	01295	HTQFP-80 (thermal pad)	Tray, 96	ADS5463MEP	ADS5463MPFPEP

1/ The vendor item drawing establishes an administrative control number for identifying the item on the engineering documentation.

2/ Thermal pad size: 9.5 mm x 9.5 mm ( 0.374 inch ) minimum, 10 mm x 10 mm ( 0.393 inch ) maximum.

### CAGE code

01295

Source of supply

Texas Instruments, Inc. Semiconductor Group 8505 Forest Lane P.O. Box 660199 Dallas, TX 75243

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