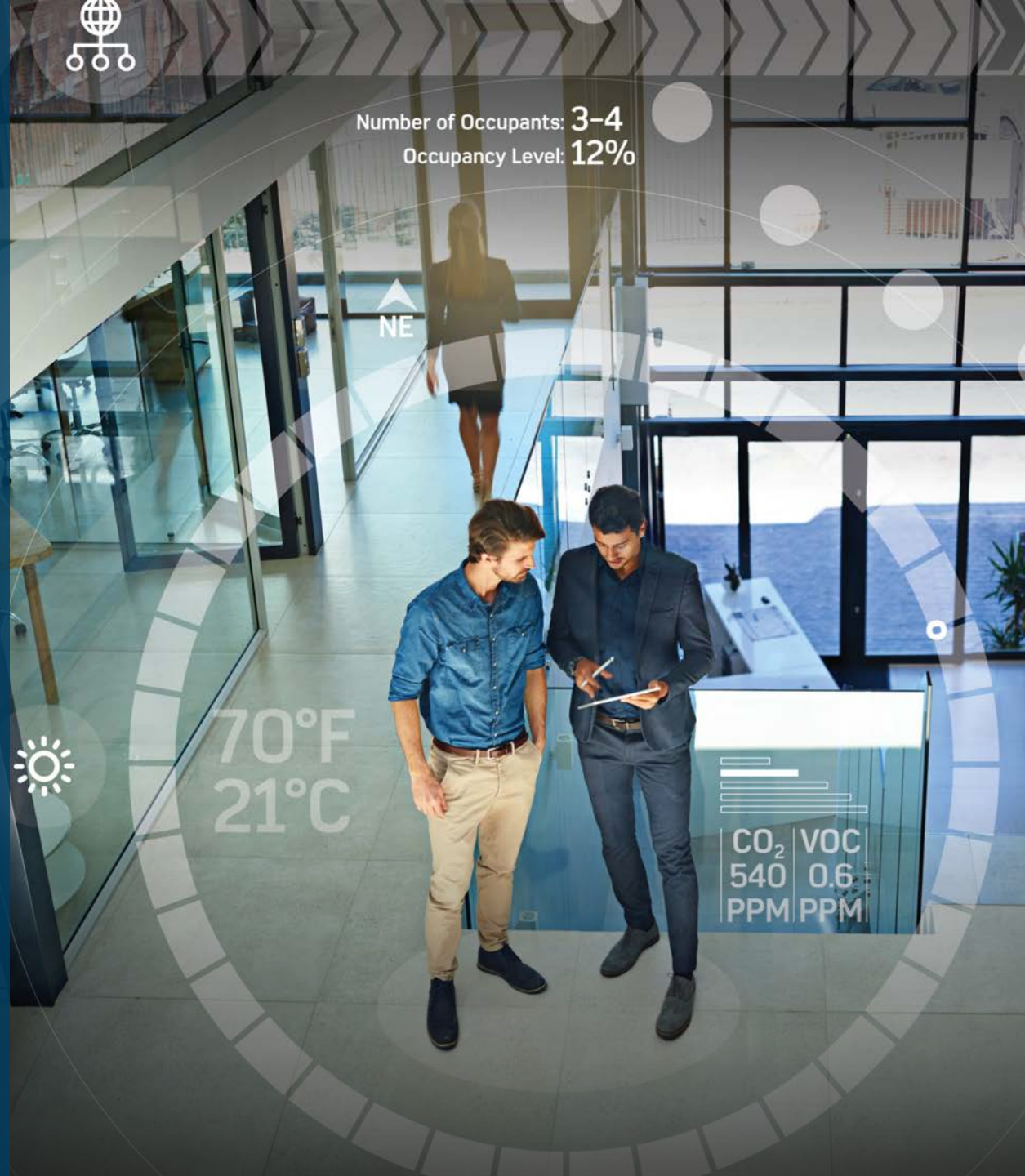




AHEAD OF WHAT'S POSSIBLE™

# HMC788A Die Revision, Assembly Site and Material Change

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Number of Occupants: 3-4  
Occupancy Level: 12%



NE



70°F  
21°C

CO <sub>2</sub>	VOC
540	0.6
PPM	PPM

# Detailed Change Description

## Commercial Part

Parameter	Current	GoTo
Die rev. – via removal	No	Yes
Assembly Site	Unisem (UG1)	AEK
Lead Frame	100Sn	Ni-Pd-Au
Die Attach	Sumitomo CRM 1076DJ conductive	Hitachi EN 4900GC conductive
Mold Compound	Sumitomo G770HCD	Sumitomo G700LYT
Wire diameter (mils)	1.0	0.8

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**Qualification Results Summary of LFCSP at ASE (AEK)**

QUALIFICATION PLAN / STATUS			
TEST	SPECIFICATION	SAMPLE SIZE	RESULTS
Low Temperature Storage (LTS)	JEDEC <i>JESD22-A119</i>	<b>77</b>	<b>Pass</b>
Temperature Cycle (TC)*	JEDEC <i>JESD22-A104</i>	<b>350</b>	<b>Pass</b>
High Temperature Storage Life (HTSL)	JEDEC <i>JESD22-A103</i>	<b>154</b>	<b>Pass</b>
Solder Heat Resistance (SHR)*	JEDEC/IPC <i>J-STD-020</i>	<b>375</b>	<b>Pass</b>
Electrostatic Discharge <i>Human Body Model</i>	ESDA/JEDEC <i>JS-001</i>	<b>3/voltage</b>	<b>Pass ±750V</b>
Electrostatic Discharge <i>Field-Induced Charged Device Model</i>	JEDEC <i>JESD22-C101</i>	<b>3/voltage</b>	<b>Pass ±1000V</b>

\* These samples were subjected to preconditioning (per J-STD-020 Level 3) prior to the start of the stress test. Level 3 preconditioning consists of the following: Bake: 24 hrs @ 125°C, Unbiased Soak: 192 hrs @ 30°C, 60%RH, Reflow: 3 passes through an oven with a peak temperature of 260°C.

**Qualification Results Summary of 0.5µm GaAs PHEMT at WinSemi**

QUALIFICATION RESULTS			
TEST	SPECIFICATION	SAMPLE SIZE	RESULTS
High Temperature Operating Life (HTOL)	JEDEC <i>JESD22-A108</i>	<b>185</b>	<b>Pass</b>
High Temperature Storage Life (HTSL)	JEDEC <i>JESD22-A103</i>	<b>749</b>	<b>Pass</b>