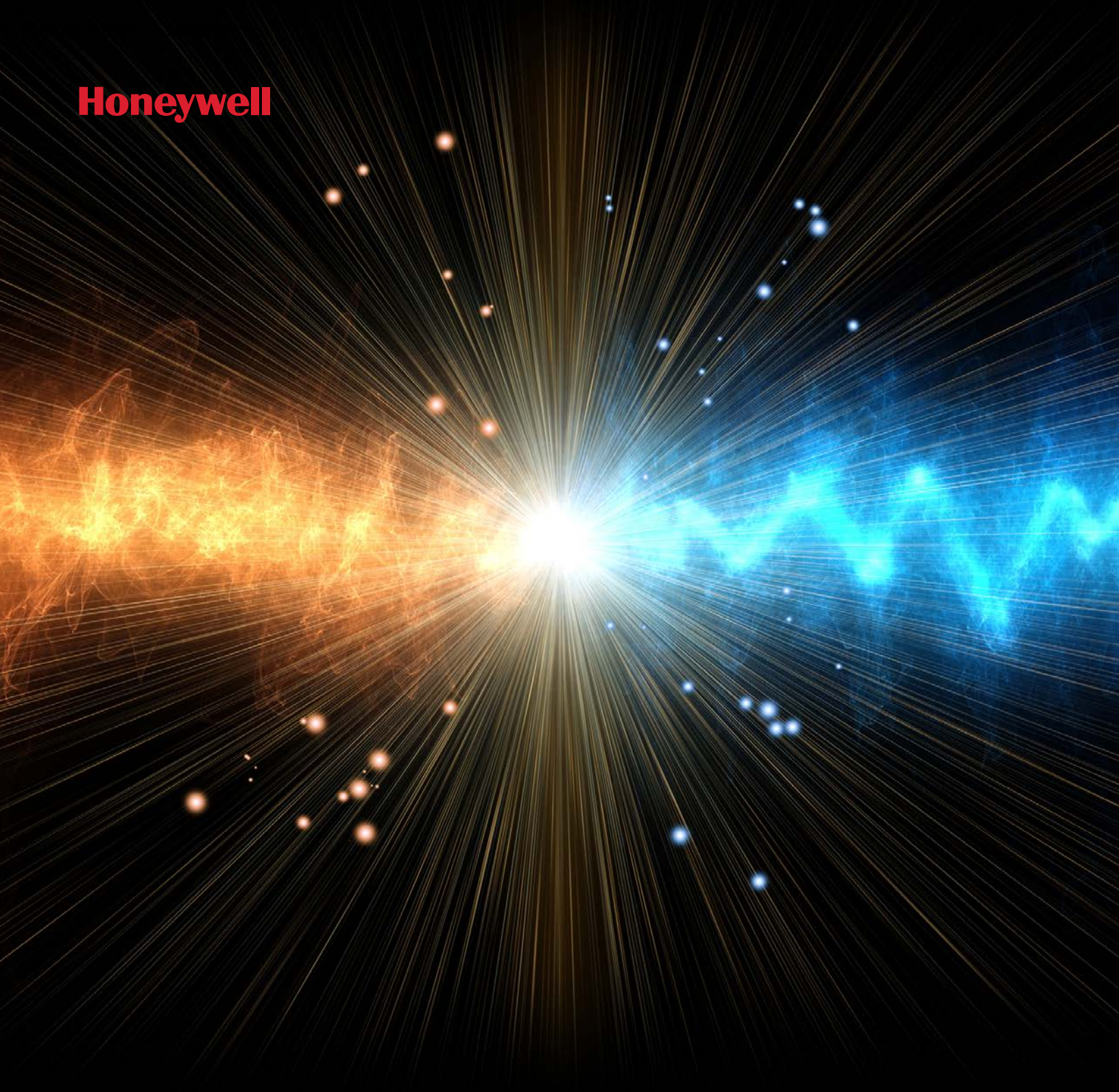


**Honeywell**



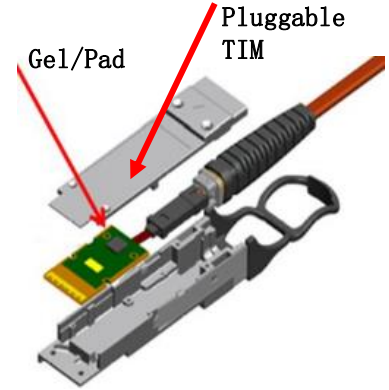
Thermal Interface Materials

**RTM-X Pluggable TIM**

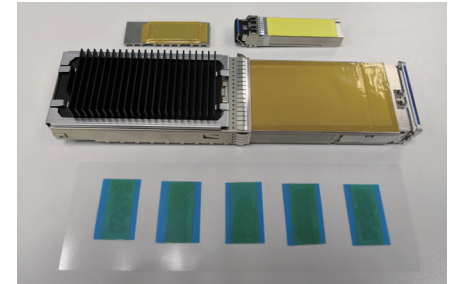


# Pluggable TIM Introduction

用于光模块等需要热插拔的应用

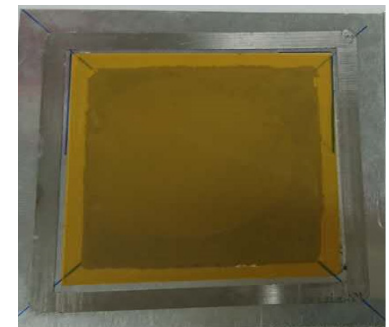


相变材料不含硅油，不挥发，不会污染光通路，  
可涂覆在光模块和笼子之间，排尽接触面缝隙中的空气，  
厚度可低至0.03毫米从而降低热阻，可带电热插拔50次以上，  
可点胶，可片状使用，高压绝缘，  
业内大厂对功耗3.5W模块做测试，在不同的环境下测试，  
风速小有1.12 改善，风速大有2.7 的改善。



## Basic Property Technical Data

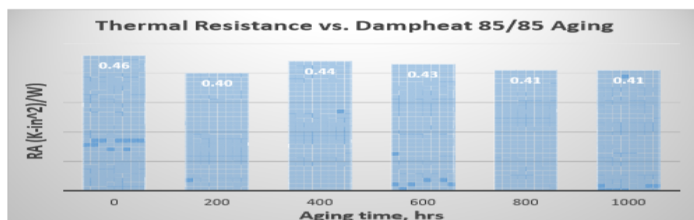
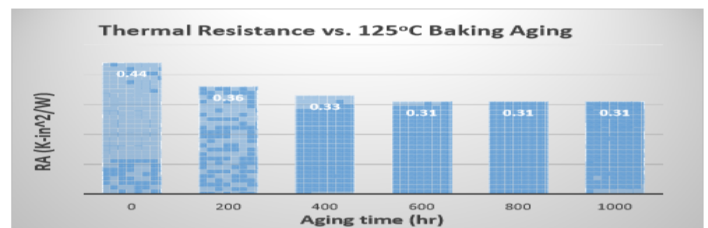
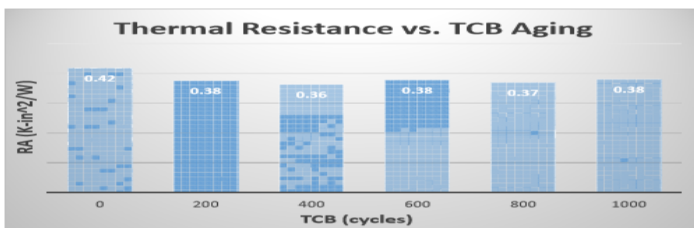
Physical Properties	Unit	Test Method	Typical value	
			RTM-X1	PTM-X2
Thermal Conductivity	W/m·K	ASTM D5470	1.8	2.5
Thermal Impedance	°Ccm <sup>2</sup> /W	ASTM D5470 Modified	0.45	0.40
Density	g/cm <sup>3</sup>		2.2	2.7
Thickness	mm		0.30	0.30
Pluggable Times	cycle		>50x	>50x
Pluggable Force	N		30-40N	30-40N



After 50x mechanical cycle

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## Long Term Reliability – RTM-X1



Test Method : ASTM D5470  
Test Condition :  
- T/B : -55°C ~ +125°C, 40mins/cycle  
- Baking : 125°C  
- 85/85 : 85°C, 85% RH

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**Consistent Reliability Behavior**

有效管理高功率密度及其产生的极端热量  
为军事，激光，车载和航空航天应用设计

# RTM-X Pluggable TIM

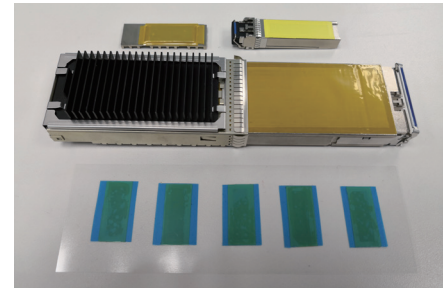
## High Thermal Conductivity Phase Change

## Material with Multiple Pluggable Capability

Honeywell RTM-X, a pluggable thermally conductive Phase Change Material (PCM), offers multiple pluggable performance. It is designed to minimize thermal resistance at interfaces, maintain excellent performance through reliability testing, and provide scalable application at a competitive cost.

Based on a novel polymer PCM system, Polyimide (PI) film was used as substrate, allowing direct contact of PCM to provide multiple pluggable performance. The edge is coated with pressure sensitive adhesive (PSA) to provide adhesion with other devices. This material exhibits excellent wetting at interfaces during typical operating temperature ranges, resulting in very low surface contact resistance.

Properties	Unit	Test Method	Typical Value	
			RTM-X1	RTM-X22
Thermal Impedance	$^{\circ}\text{C}\cdot\text{cm}^2/\text{W}$	ASTM D5470 modified	1.2	0.7
Pluggable performance	times		> 50	> 50
Breakdown strength	VAC/mm	ASTM D149	> 5000	> 5000
Thickness	mm		0.15~0.22	0.15~0.22



## TYPICAL APPLICATIONS

Heat Dissipation for  
Removable Modules in  
Telecom and Datacom  
Applications

## STORAGE CONDITION

Refer to product label

## Honeywell Electronic Materials

USA: 1-509-252-2102  
China: 86-21-50203266  
Germany: 49-5137-999-9199  
Japan: 81-3-6730-7092  
Korea: 82-2-3483-5076  
Singapore: 65-6580-3593

大陆区域代理商联系方式：  
Frank@semiwell.cn 13918237146

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## WORLDWIDE DEVELOPMENT, MANUFACTURING AND SUPPORT

### United States

Santa Clara, California  
Sunnyvale, California  
Spokane, Washington  
Chandler, Arizona  
Salt Lake City, Utah  
Bryan, Texas  
Houston, Texas  
Mansfield, Texas  
Fombell, Pennsylvania  
Morristown, New Jersey

### Europe

Seelze, Germany

### Asia

Shanghai, China  
Jincheon, Korea  
Tokyo, Japan  
Yaita, Japan  
Chonburi, Thailand  
Hsinchu, Taiwan  
Singapore



▲ Research & Development Site ● Manufacturing Site ■ Support Site

## HONEYWELL TIM ADVANTAGES

### Quality

- Industry-leading reliability over device lifetime
- More than twenty years specializing in TIM materials R&D and manufacturing
- Proprietary formulations optimized for the needs of specific applications
- Proven, long-standing supplier with multiple worldwide quality certifications

### Customer Focused

- Serving diverse range of customers
- TIMs offered in both pad and paste formats for ease of application
- Superior global technical support
- Portfolio of other materials, such as thermal spreaders, electrical interconnect and pure metals

Find out more by visiting:

[electronicmaterials.com](http://electronicmaterials.com)



**RESPONSIBLE CARE**  
OUR COMMITMENT TO SUSTAINABILITY

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