

## PMP40269 Test Results

### 1. Efficiency

Test at board end

Vin(V)	Iin(mA)	B_VBUS(V)	Io1(A)	A_VBUS(V)	Io2(A)	Effi.(%)
7.01	0.580	5.093	0.480	5.108	0.295	97.2
6.99	1.185	5.117	0.957	5.135	0.596	96.0
7.00	1.812	5.138	1.434	5.160	0.899	94.7
7.00	2.456	5.155	1.913	5.183	1.190	93.2
6.97	3.173	5.163	2.400	5.195	1.491	91.1

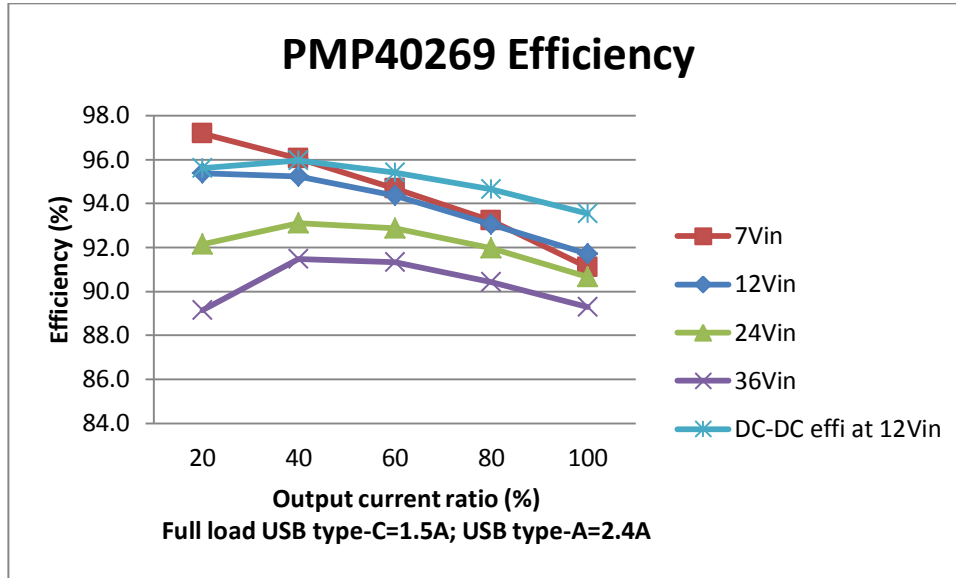
Vin(V)	Iin(mA)	B_VBUS(V)	Io1(A)	A_VBUS(V)	Io2(A)	Effi.(%)
11.99	0.346	5.095	0.480	5.110	0.295	95.4
12.04	0.694	5.118	0.957	5.135	0.596	95.2
11.97	1.063	5.138	1.434	5.160	0.899	94.3
11.91	1.457	5.158	1.923	5.183	1.201	93.0
12.00	1.833	5.173	2.400	5.205	1.491	91.7

Vin(V)	Iin(mA)	B_VBUS(V)	Io1(A)	A_VBUS(V)	Io2(A)	Effi.(%)
23.96	0.179	5.095	0.480	5.108	0.295	92.1
23.93	0.357	5.115	0.956	5.133	0.596	93.1
23.99	0.539	5.138	1.434	5.160	0.899	92.9
23.98	0.727	5.155	1.913	5.180	1.190	92.0
23.98	0.928	5.170	2.400	5.203	1.491	90.7

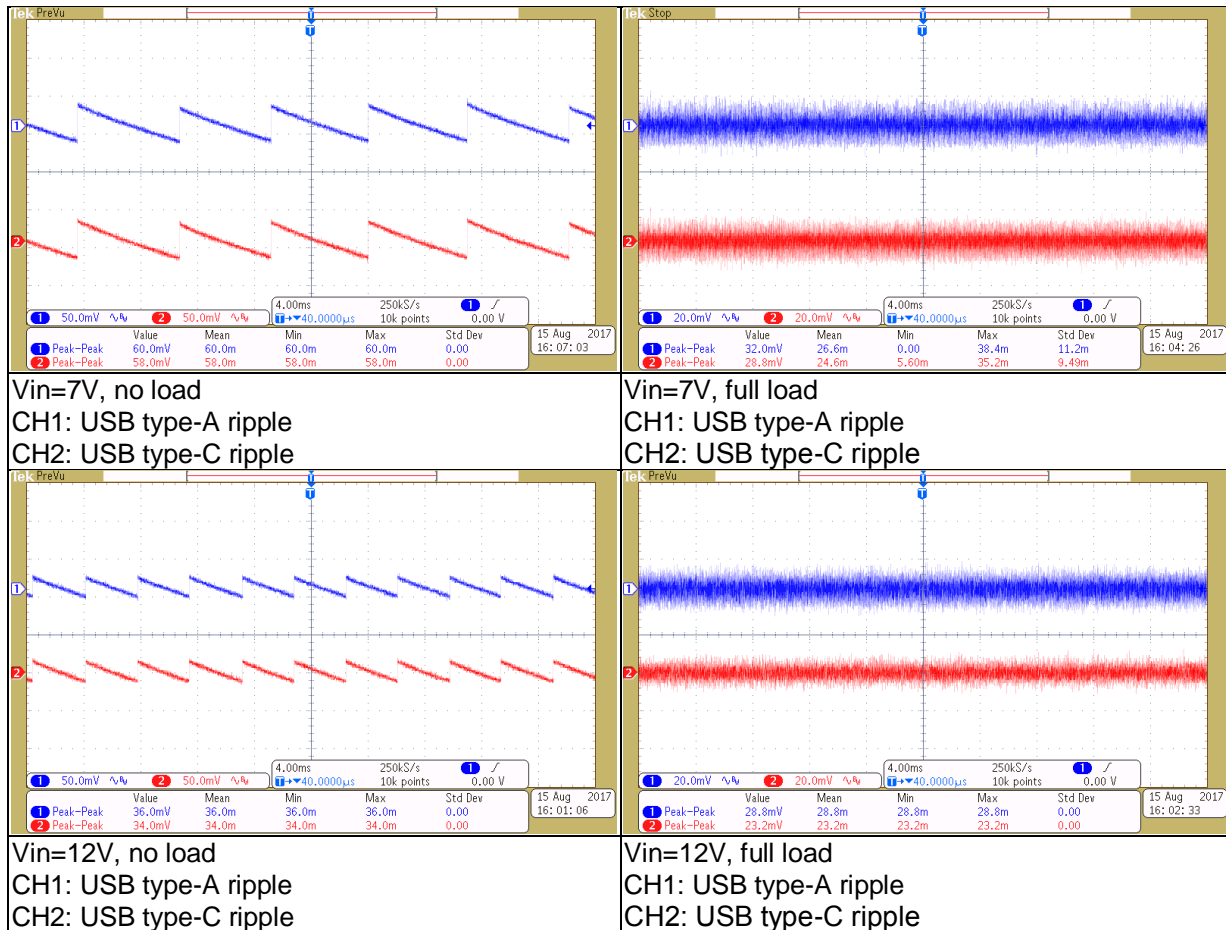
Vin(V)	Iin(mA)	B_VBUS(V)	Io1(A)	A_VBUS(V)	Io2(A)	Effi.(%)
36.04	0.123	5.095	0.480	5.108	0.295	89.2
36.02	0.242	5.116	0.958	5.135	0.598	91.5
36.00	0.365	5.138	1.434	5.158	0.899	91.3
35.97	0.493	5.155	1.913	5.180	1.189	90.4
35.94	0.628	5.168	2.400	5.200	1.493	89.3

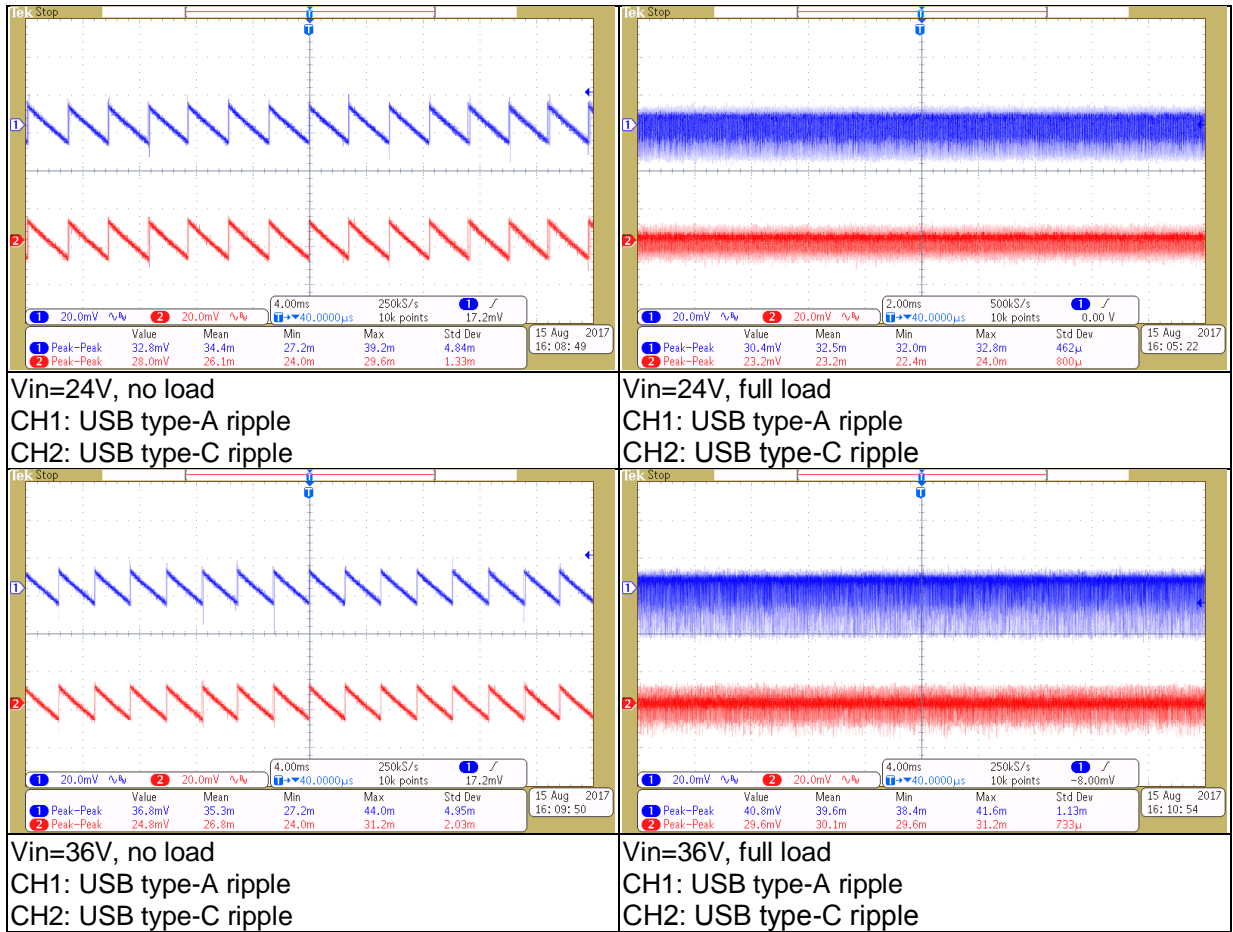
DC/DC efficiency

Vin(V)	Iin(mA)	Vo(V)	Io(A)	Effi.(%)
12.02	0.345	5.083	0.780	95.6
11.95	0.690	5.083	1.556	96.0
11.95	1.040	5.080	2.333	95.4
11.96	1.395	5.078	3.110	94.6
11.98	1.763	5.073	3.896	93.6

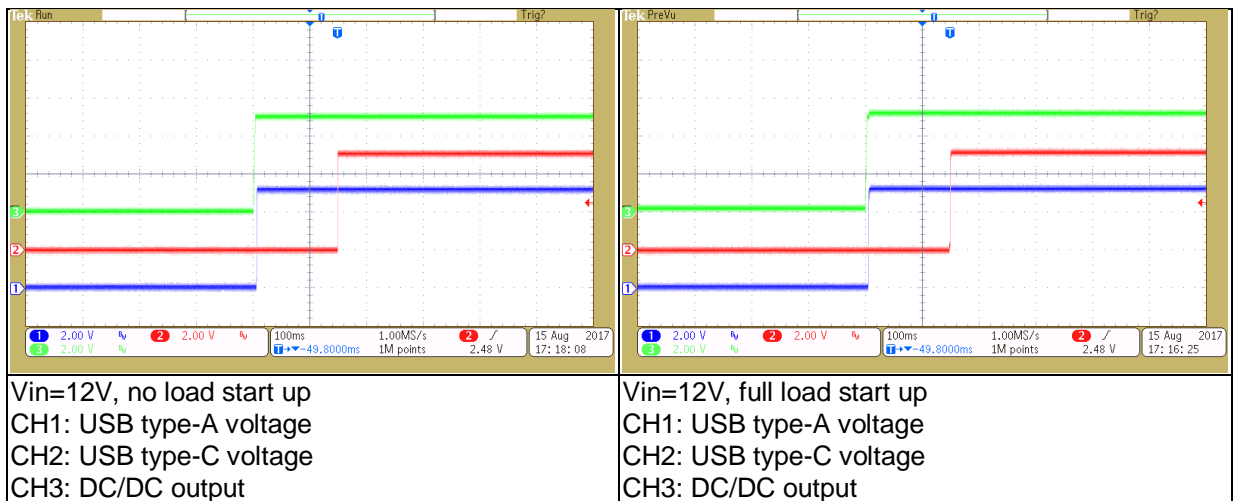


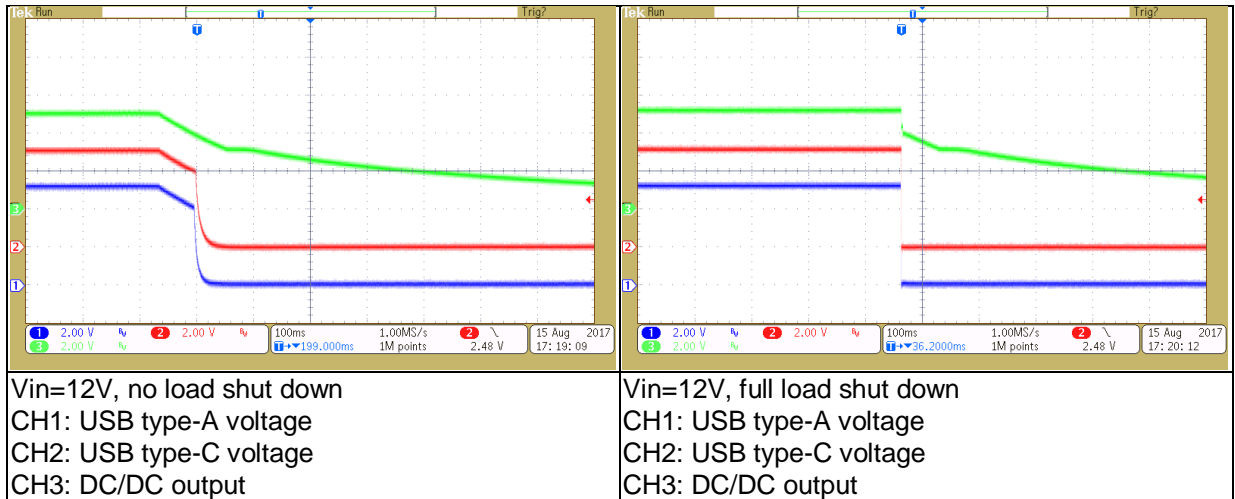
## 2. Ripple and noise



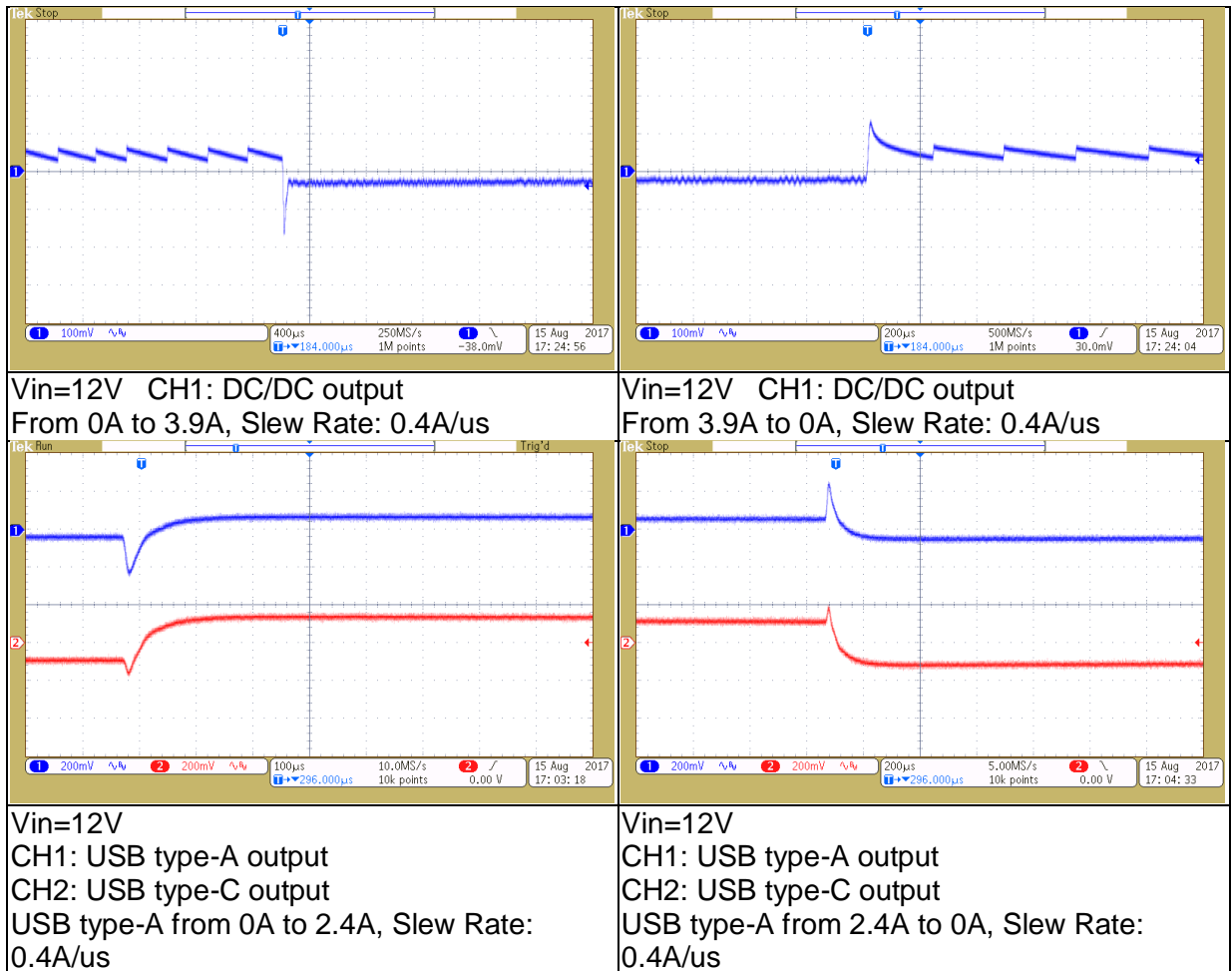


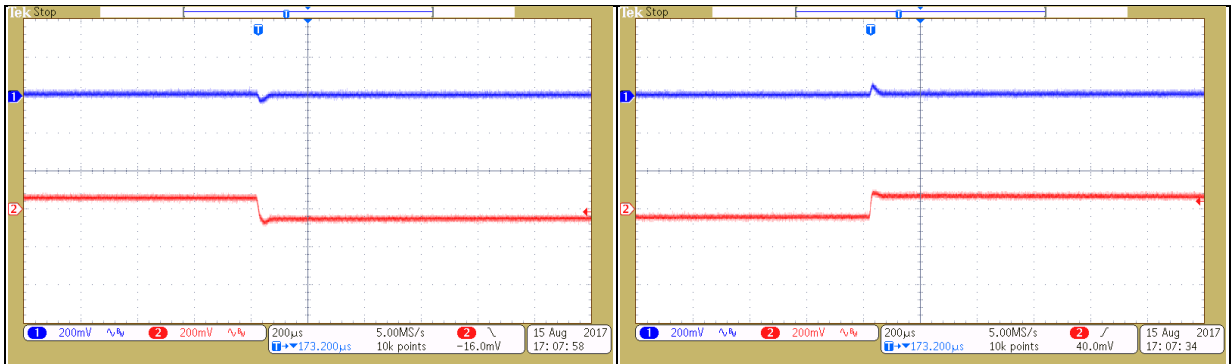
### 3. Start up and Shut down





#### 4. Load Transient

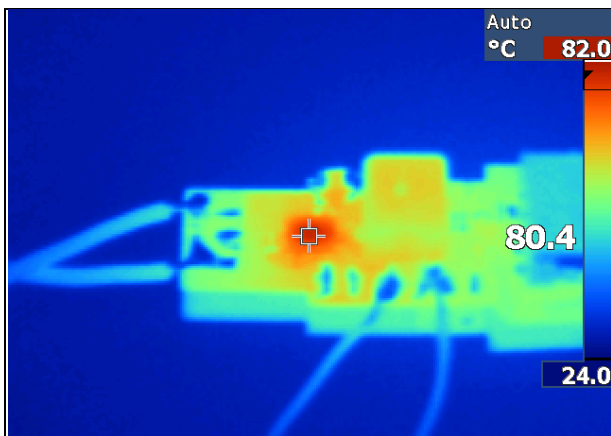




Vin=12V  
 CH1: USB type-A output  
 CH2: USB type-C output  
 USB type-C from 0A to 1.5A, Slew Rate:  
 0.4A/us

Vin=12V  
 CH1: USB type-A output  
 CH2: USB type-C output  
 USB type-C from 1.5A to 0A, Slew Rate:  
 0.4A/us

## 5. Thermal



Vin=12V  
 USB type-C=1.5A; USB type-A=2.4A

## IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to TI's Terms of Sale (<https://www.ti.com/legal/termsofsale.html>) or other applicable terms available either on [ti.com](https://www.ti.com) or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265  
Copyright © 2021, Texas Instruments Incorporated