

7 Focus Applications





Sections

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Contact

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Inverter & Motor Drive Analysis (IMDA)

The Collection:

EMEA Partner Marketing Portal - EMEA IMDA (Inverters & Motor Drive Analysis)(widencollective.com)



Asset type	Widen Link
Picture	• IMDA Cover Image • Engineer at AGC Trade Show booth • Tradeshaw Booth at AGC 2023
Video	• IMDA Overview by Lee Morgan • IMDA at AGC • IMDA Demo Using a 6 Series B MSO • Powering Our Electrified Future
Brochure	Automotive Electronics
Flyer	• Electric Vehicle Traction Inverter Testing Solution • Testing Today's Automotive Technologies • EV Powertrain Analysis and Troubleshooting
Datasheet	5 /6 Series-IMDA Application Datasheet
Case study	Tektronix Supports Magway's Mission to Develop a Zero Emissions Delivery System
Presentation	• Comparing Thunderbolt and USB4 Over Type-C • Market & Technology Trends in Power Electronics
Primer	• Making Measurements on 3-phase Motor Drives With an Oscilloscope • Power Efficiency Trends in Industrial and Renewable Applications
LinkedIn post	Demo video: Tektronix 3-phase IMDA Demo Video: IMDA Overview by Yogesh Pai DQO whitepaper: DQO Analysis of Motor Control Systems Using An Oscilloscope.

Power Distribution Network & Analysis (PDN)

The Collection:

EMEA Partner Marketing Portal - EMEA PDNA (Power Distribution Network and Analysis)(widencollective.com)



Asset type	Widen Link
Picture	• PDN Cover Image • PDN Trade Show Booth • PDN Application Image
Video	• Overview of Frequency Response Analysis Measurement Solutions by Tektronix • Jitter in PDN • Bode Control Loop Response • Measuring Impedance- TDR Techniques • Power Supply Rejection Ratio PSSR • Port Shunt Through Impedance • How to Measure Power Rail Current with Shunt Resistor • Power Rail Measurements
Flyer	PDN and Power Rail Measurement Solution.
Application Note	• Making Accurate Current Measurements on Power Supplies With Oscilloscopes • Measuring the Control Loop Response of a Power Supply Using an Oscilloscope • Using MSOs to Find and Diagnose Jitter Caused by Power Integrity Problems • Getting Started with Power Rail Measurements • In Circuit Measurements of Inductors and Transformers in Switch Mode Power Supplies
Media Article	• Oscilloscope Detects Jitter and Analyzes the Power (DE) • Jitter on Serial Data Lines and Power Rail Analysis
LinkedIn Posts	Jitter: Post Feed LinkedIn Jitter: Post Feed LinkedIn

Power Conversion Efficiency (PCE)

The Collection:

EMEA Partner Marketing Portal - EMEA PCE (Power Conversion Efficiency)(widencollective.com)



Asset type	Widen Link
Picture	• PCE Cover Image • PCE Application Image • PCE Trade Show Booth
Video	• PCE Overview by Lee Morgan • PCE Brief Overview at AGC 2023 • WBG-DPT Overview at AGC by Yogesh Pai • WBG Overview at AGC (2) • WBG-DPT Product Bundle • TIF: Double Pulse Testing • DPT: Energy Loss Measurements • Double Pulse Demo • Measuring Switching loss on SiC Power Supplies • Intuitive Controls on The 5 Series B MSO
Datasheet	WBG- DPT analysis
Application Note	• Making Accurate Current Measurements on Power Supplies with Oscilloscopes • Probing Techniques for Accurate voltage Measurements on Power supplies with Oscilloscopes • Power Supply Measurement and Analysis with 4/5/6-PWR Application Software • In-Circuit Measurements of Inductors and Transformers in Switch Mode Power Supplies • DPT for Power Semiconductor Devices with an Oscilloscope and AFG • Verifying Power Supply Sequencing with an 8-Channel Oscilloscope • Effective Measurements of Signals in SiC Power Electronic Systems • DPT Power Semiconductor Devices with a 5/6 Series MSO with Built in AFG • Switching Loss Measurements
Flyer	DPT Solution for WBG Power Semiconductors
Landing Page	Accurate and Repeatable DPT Analysis on the 4/5/6 Series Oscilloscopes
Presentation	Winning WBG with Tektronix Probes
LinkedIn	• DPT: WBG-DPT Overview video • DPT: Media Article • DPT: DPT Demo



Power Conversion Efficiency (PCE)

The Collection:
[EMEA Partner Marketing Portal - EMEA PCE \(Power Conversion Efficiency\)\(widencollective.com\)](#)

Continued:



Asset type	Widen Link
Primer	• Power Efficiency Trends in Industrial and Renewable Applications • How Energy Trends and New Testing Requirements are Improving Power Conversion Efficiency



New Material & Component Characterization (AMS)

The Collection:

EMEA Partner Marketing Portal - EMEA New Material & Component Characterization (widencollective.com)



Asset type	Widen Link
Picture	• Cover Image • Trade Show Booth • Application Image
Video	• AGC Presentation by Michael • Keithley's ACS Software
Datasheet	Automated Characterization Suite Software
Application Note	• ACS Integrated Test System for Lab-Based Automation • Making High Resistance Measurements of Sensitive Devices Using the Keithley 2470 SMU • Making Femtofarad (1e-15F) Capacitance Measurements with the 4215-CVU • Making Van Der Pauw Resistivity and Hall Voltage Measurements Using the 4200A-SCS Parameter Analyzer • Making Stable Low Current Measurements With High Test Connection Capacitance Using the 4201-SMU and 4211-SMU • DC IV and AC Impedance Testing Organic FET • An Ultra-Fast Single Pulse (UFSP) Technique for Channel Effective Mobility Measurement • Electrical Characterization of Photovoltaic Materials and Solar Cells with the 4200A-SCS Parameter Analyzer • Resistivity Measurements of Semiconductor Materials Using the 4200A-SCS Parameter Analyzer and a Four-Point Collinear Probe • Optimizing Low Current Measurements With the 4200A-SCS Parameter Analyzer
Presentation	New Material & Component Characterization 4200A Platform

Wide Bandgap Performance, Reliability and Lifetime (WBG)

The Collection:

EMEA Partner Marketing Portal - EMEA WBG Performance, Reliability and Lifetime (widencollective.com)



Asset type	Widen Link
Picture	WBG Cover Image WBG Application Image
Datasheet	- ACS Wafer Level Reliability Edition - ACS basic Edition: Semiconductor Parametric Test Software for Component and Discrete Devices
Technical Brief	- New High Power Semiconductor Devices are Pushing Instrumentation to Extremes - Five Reasons to Switch to the 2470SMU From the 2410 SMU for High Voltage I-V Characterization
Video	- WBG Overview by Andrea Vinci - TIF: How Silicon Carbide is Powering the Electric Vehicle Revolution - TIF: What is Driving the Power Electronics Market? - An Introduction to WBG - WBG AGC Overview - How to Use Keithley's Digital IO Feature of a Graphical Touchscreen SMU - Threshold Voltage Test for Power Device Using Keithley's 2657A SMU and KickStart Software - Temperature Scanning for Thermal Profiling
Applications Guide	Methods and Techniques for Semiconductor Characterization
Presentations	- Characterizing WBG Devices at the Wafer and Package Level - I-V tracer Tek Tips - I-V Curve Tracers: Something Worth Knowing - WBG Applications and Validation Test Challenges - Tips and Techniques to Simplify MOSFET/ MOSCAP Device Characterization
Media Article	VDS Ramp and HTRB Reliability Testing of High Power Semiconductor Devices With Automated Characterization Suite(ACS) Software
LinkedIn Post	Tektronix Releases Oscilloscope-based Double Pulse Test Solution that speeds up validation time on SiC & GaN Technologies

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Wide Bandgap Performance, Reliability and Lifetime (WBG)

The Collection:

EMEA Partner Marketing Portal - EMEA WBG Performance, Reliability and Lifetime ([widencollective.com](https://www.widencollective.com))

Continued:



Asset type	Widen Link
Application Note	- Challenges in GaN HEMT Power Device DC Characterization - Measuring Gate Charge of a Device with ACS Software - Power MOSFET Device I-V Characterization in KickStart - Expanding Thermistor Temperature Measurements Using TSP Technology - WBG Device Reliability Testing with Keithley's KickStart Software - Pulsed I-V Characterization of MOSFETs Using KickStart software - Testing Power Semiconductor Devices with Keithley High Power System Sourcemeter SMU Instruments and ACS basic Edition Software - Using the Built-in FFT Functions to Calculate the Spectral Density, 1/F Noise, AC Impedance and Other Parameters with the 4200A-SCS Parameter Analyzer - Automating High and Low Frequency C-V measurements and interface trap density (DIT) calculations of MOS capacitors using the 4200A-SCS parameter analyzer - Keithley 4200A-SCS_1f Current Noise Application Note
Primer	- Testing High Power Semiconductor Devices from Inception to Market - How Energy Trends and New Testing Requirements are Improving Power Conversion Efficiency

Signal Integrity and Comms Links Validation (HSS)

The Collection:

EMEA Partner Marketing Portal - EMEA Signal Integrity and Comms Links Validation ([widencollective.com](https://www.widencollective.com))

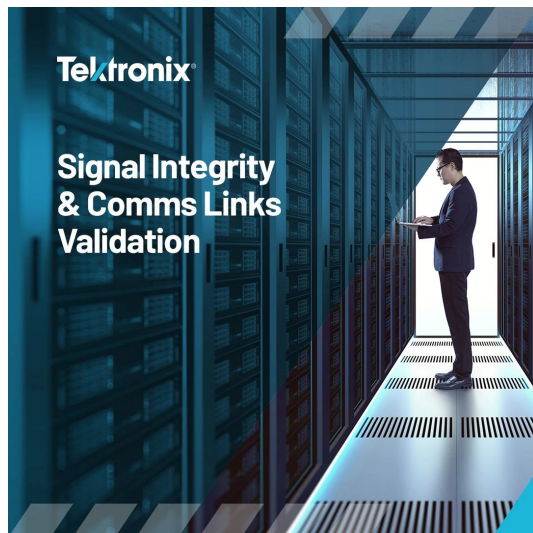


Asset type	Widen Link
Picture	HSS Cover Image HSS AGC Trade Show booth HSS Application Image
Video	• HSS Overview by Andrea Vinci • TIF:PCIe 6.0 Panel Discussion- Designing for the Future with 64GTs and Beyond • TIF:Addressing New Display Port v2.1 Testing Challenges • Comms Links Validation at AGC • TMT4 Quick scan AE Demo • Flex Long Reach Solder Tips for DDR/ LPDDR • TMT4 Quick Scan AE Demo (pt 4) • TMT4 Quick Scan AE Demo(pt 1-5) • IEEE 802.3CK Electrical Standard • DDR5 Test • Installing Solder-in Tips for P7700 Probes
Flyer	• The TMT4 Margin Tester • USB4™ Transmitter Compliance and Debug Solution • PCIe Gen 5 Transmitter Compliance Testing • Efficient Verification & Debugging for LPDDR5 Memory Interfaces • Efficient Verification and Debugging for DDR5 Memory Interfaces
Whitepaper	• Establishing PCIe® Reference Mask Using a TMT4 Margin Tester • A New Approach to Evaluating PCIe® Link Health • How the Doubling of Interconnect Bandwidth with PCI Express® 6.0 Impacts IP Electrical Validation • PCI Express® Transmitter Lane-to-Lane Skew Measurement • PCI Express Gen5: Automated Multi-Lane Testing • PCIe Link_Health • DDR5 Measurement Challenges
E-guide	High Speed Interface Standards

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Signal Integrity and Comms Links Validation (HSS)

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Asset type	Widen Link
Application Note	• Signal Integrity Backplane Testing • Achieving Fast Insight into PCIe® Receiver Performance Using the TMT4 Margin Tester • How a New Method for PCI Express® Physical Layer Testing Offers Quick Insight into Transmitter Link Health
Customer Presentation	• How to Address the New DDR5 Test Challenges • The New IEEE 802.3ck Electrical Standard: A Discussion of the Standard and Compliance Measurements
Primer	Fundamentals of Signal Integrity
Technical brief	PCI Express 5.0 Transmitter Validation
Webinar	• Applying Fast and Frequent Link Health Evaluation for Root Cause Analysis and Real-World Simulation • Troubleshooting in the Fast Lane 100G Lanes for IEEE 802.3ck • Physical Layer Characterization of PCIe 6.0 SerDes Designs • Exploring future Measurement Methodologies for PCIe 6.0
Applications Guide	High Speed -Overview
LinkedIn Post:	• TMT4 Teaser Post • David Bouse Explains the Anticipated Evolution of PCI Express from Gen5 to Gen6

Test Systems Automation in R&D and Manufacturing (TSA)

The Collection:

EMEA Partner Marketing Portal - EMEA Test Systems Automation in R&D and Manufacturing (widencollective.com)



Asset type	Widen Link
Picture	Test Systems Automation Cover Image
	Test Systems Automation Application Image
Video	Using the Keithley KickStart Battery Simulator App 7709 Matrix Module TSP App
Technical Brief	Equipping SMUs with Function Generation Using TSP Technology
Application Note	• Measuring Battery DCIR with a 24xx Graphical SMU and TSP Technology • Battery Cycling Test and Automation Considerations • Battery Optimization Using the Keithley 2281S and 2380 and KickStart Software's Battery Simulator App • KickStart Software as a Bench Companion for Education • Boost Test Automation with On-Instrument Scripting • Expanding Thermistor Temperature Measurements Using TSP Technology • Performing Strain Gauge Measurements with the Keithley DAQ6510 and KickStart Software • How to Transition Code to TSP From SCPI • How to Write Scripts for Test Script Processing (TSP)

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