

## Application Guide

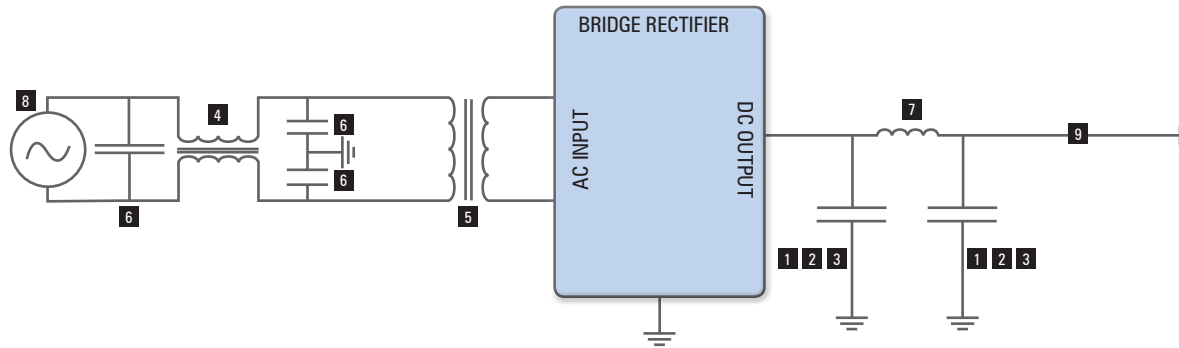
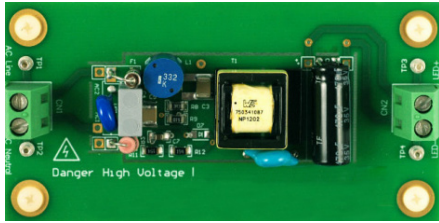
KEMET makes it possible.

Electronic Components

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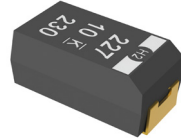
# AC TO DC CONVERTER



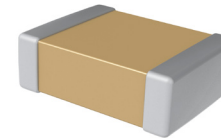
**1 ALUMINUM ELECTROLYTIC**  
EDH, EDK, ESK, ESH, ELH, ELG



**2 POLYMER TANTALUM**  
T520, T521, T530



**3 MLCC**  
X7R, X5R



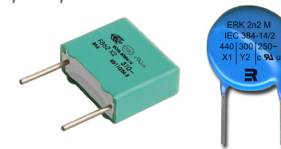
**4 AC LINE FILTER**  
SS, SU, SC



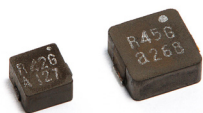
**5 TRANSFORMER**  
CUSTOM



**6 X/Y SAFETY CAP**  
C900, R46, R47



**7 POWER INDUCTOR**  
MPC, CPI, HDI, PLC, MPL, MPLC, MPGH



**8 FB INLET FILTER**  
GL-C, GL-FVP, GL-H, GL-M, DECTRON FB



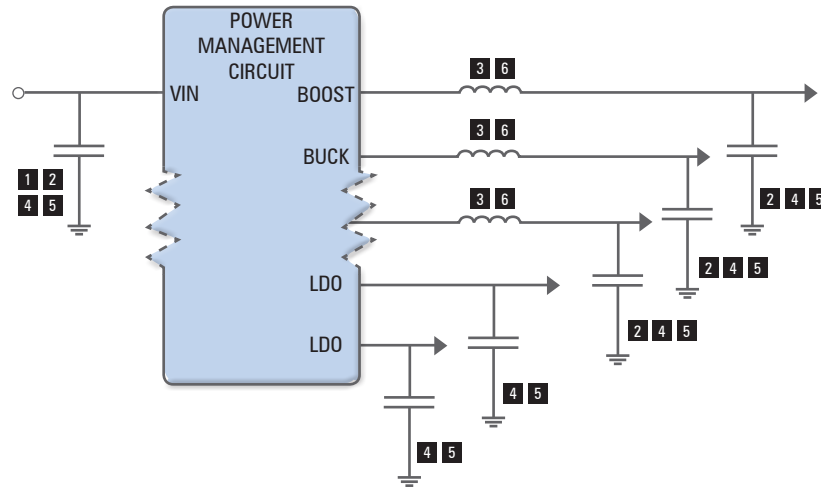
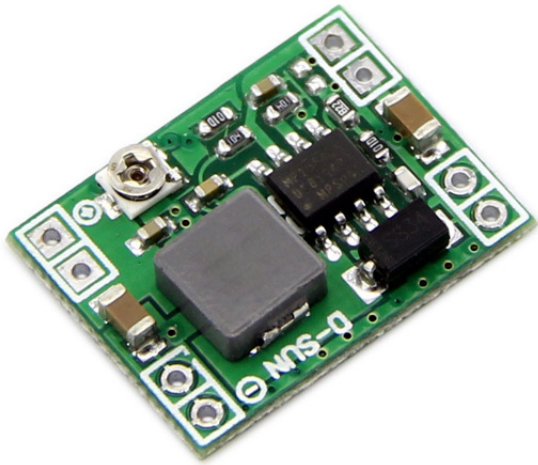
**9 EMI CORE**  
ESD



## FREQUENTLY ASKED QUESTIONS

WHAT OUTPUT VOLTAGES ARE YOU USING?  
HOW MUCH CURRENT FOR THE DESIGN?  
WHAT INPUT AC VOLTAGES?

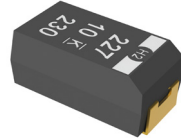
# DC POWER DISTRIBUTION



**1 SMT ALUMINUM ELECTROLYTIC**  
EDH, EDK, EEV, EXV



**2 POLYMER TANTALUM**  
T520, T521, T530



**4 MLCC**  
X7R, X5R



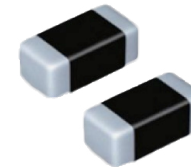
**5 ALUMINUM POLYMER**  
A700, A720



**3 POWER INDUCTOR**  
MPC, CPI, HDI, PLC, SBC



**6 CHIP INDUCTORS**  
PWS, PWI, PWR, PWF



## FREQUENTLY ASKED QUESTIONS

WHAT INPUT VOLTAGE(S) ARE YOU USING?

WHAT OUTPUT VOLTAGE(S) ARE YOU USING?

WHAT TYPE OF VOLTAGE REGULATORS?

WHAT FREQUENCY ARE SWITCHING REGS RUNNING?

HOW MUCH OUTPUT CURRENT?

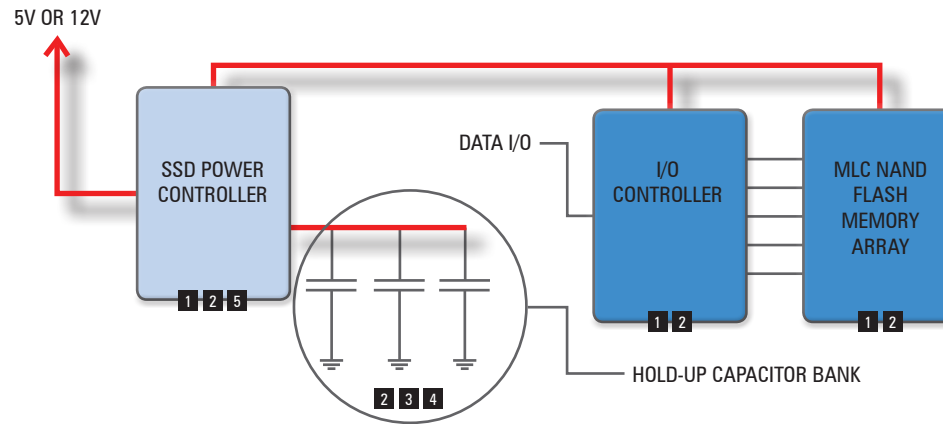
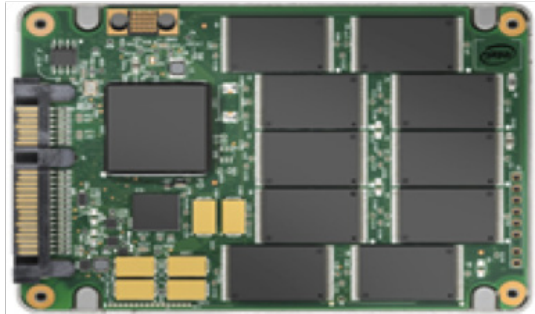
WHAT IS THE CIRCUIT APPLICATION OF EACH "RAIL"?

USING AN OTS MODULE OR DESIGNING YOUR OWN?

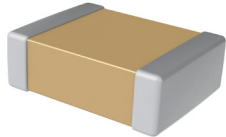
WHOSE REGULATORS ARE YOU USING?

# SOLID STATE DRIVE (SSD)

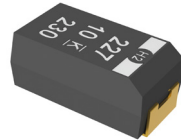
POWER BLOCKS    DIGITAL BLOCKS



**1 MLCC**  
X7R, X5R



**2 POLYMER TANTALUM**  
T545



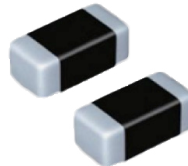
**3 RADIAL ALUMINUM ELECTROLYTICS**  
ESK, ESH, ESC, ESG



**4 RADIAL SUPERCAPACITORS**  
HVZ SERIES



**5 INDUCTORS**  
PWS, PWI, PWR, PWF



## FREQUENTLY ASKED QUESTIONS

IS THIS SSD FOR ENTERPRISE OR SERVER APPLICATIONS?

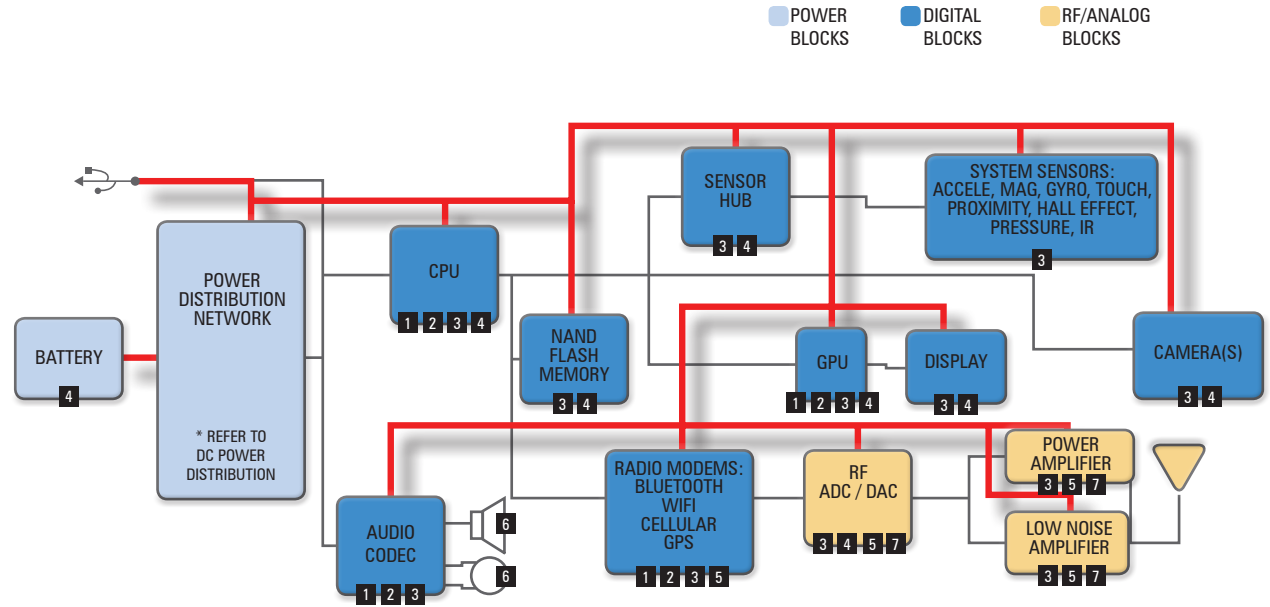
HOW MUCH FOOTPRINT AND HEIGHT SPACE IS AVAILABLE FOR HOLD-UP?

WHAT IS THE INPUT VOLTAGE FOR THE SYSTEM?

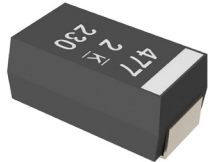
WHAT ARE THE OPERATING TEMPERATURE AND STORAGE TEMPERATURE CONDITIONS OF THE SSD?

WHAT IS THE EXPECTED LIFETIME OF THE DEVICE?

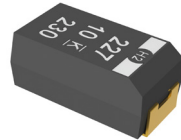
# CELL PHONE/ TABLET



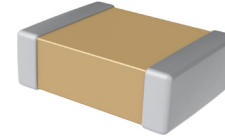
## 1 ALUMINUM POLYMER A700, A720



## 2 POLYMER TANTALUM T520, T528, T521, T529



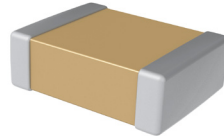
## 3 MLCC COG, X7R, X5R



## 4 FLEX SUPPRESSOR EFH, EFG, EFF



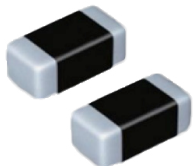
## 5 RF MLCC CBR



## 6 ACOUSTIC MODULE MINIATURE ACUTATOR Rxx



## 7 CHIP INDUCTORS RMS



## FREQUENTLY ASKED QUESTIONS

IS THIS A QUALCOMM BASED DESIGN?

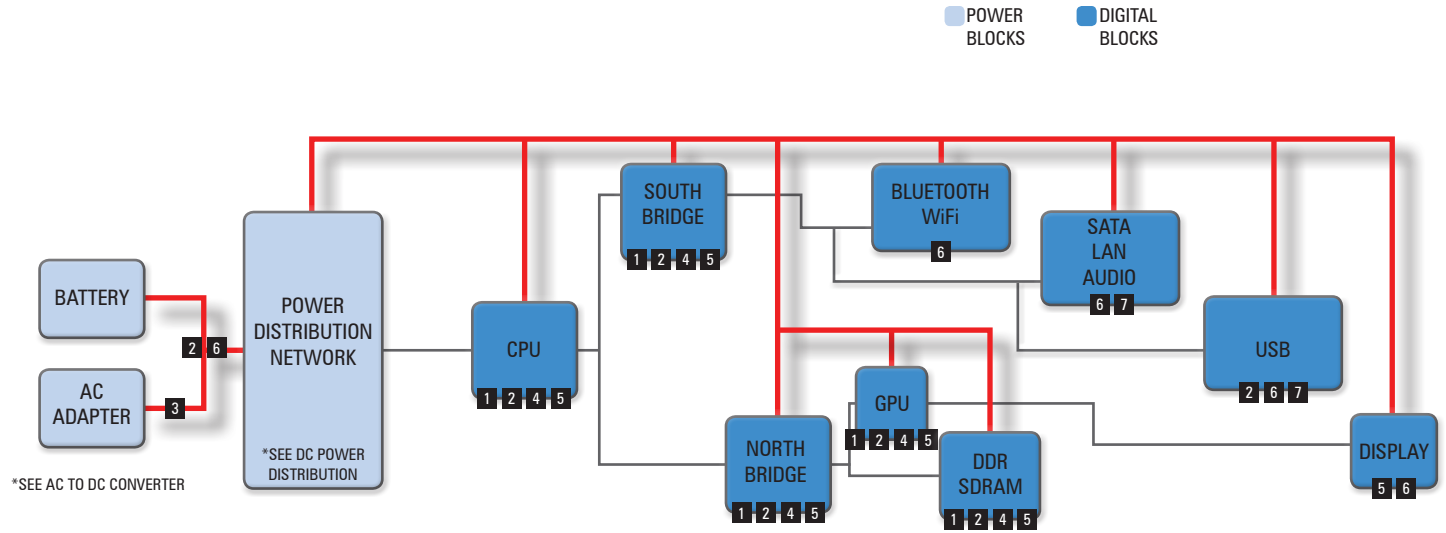
WHAT TYPE OF DISPLAY ARE YOU USING?

WHAT TYPE OF BATTERY ARE YOU USING?

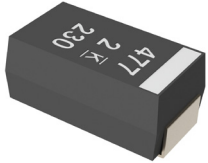
WHAT VOLTAGE RAILS ARE ON YOUR SYSTEM?

DOES THE DESIGN NEED TO BE WATERPROOF?

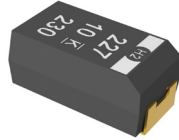
# LAPTOP COMPUTER



## 1 ALUMINUM POLYMER A700, A720



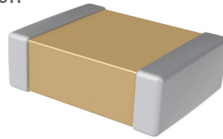
## 2 POLYMER TANTALUM T520, T528, T521, T529



## 4 FLEX SUPPRESSOR EFH, EFG, EFF



## 5 MLCC COG, X7R, X5R



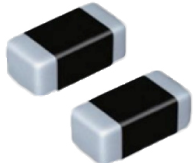
## 3 EMI CORE ESD



## 6 ALUMINUM ELECTROLYTIC EDH, EDK, ESK, ESH



## 7 INDUCTORS PWS, PWI, PWR, PWF



## FREQUENTLY ASKED QUESTIONS

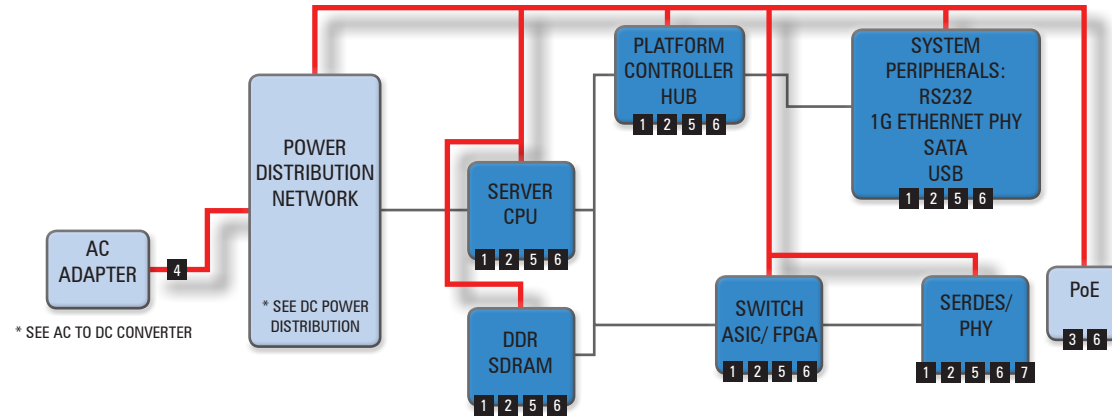
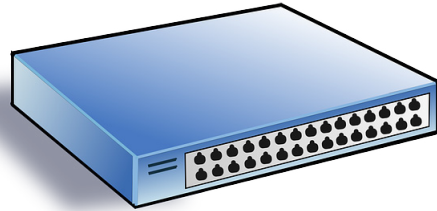
WHAT CHIPSET ARCHITECTURE ARE YOU USING?

IS THIS A COMMERCIAL SYSTEM OR FOR INDUSTRIAL/MILITARY USE?

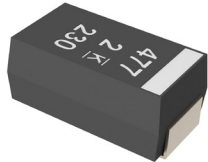
WHAT TYPE OF COMMUNICATION PERIPHERALS ARE ON YOUR SYSTEM?

# NETWORK SWITCH

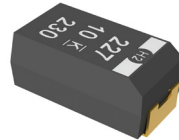
POWER BLOCKS    DIGITAL BLOCKS



## 1 ALUMINUM POLYMER A700, A720



## 2 POLYMER TANTALUM T520, T521, T530



## 4 EMI CORE ESD



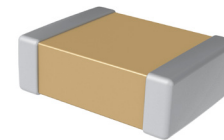
## 5 FLEX SUPPRESSOR EFH, EFG, EFF



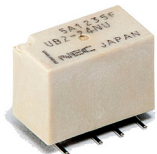
## 3 CURRENT SENSOR MDCS



## 6 MLCC X7R, COG, X5R



## 7 SIGNAL RELAY UB2, UD2



## FREQUENTLY ASKED QUESTIONS

WHAT CHIPSET ARCHITECTURE ARE YOU USING?

IS THIS A COMMERCIAL SYSTEM OR FOR INDUSTRIAL/MILITARY USE?

WHAT TYPE OF COMMUNICATION PERIPHERALS ARE ON YOUR SYSTEM?

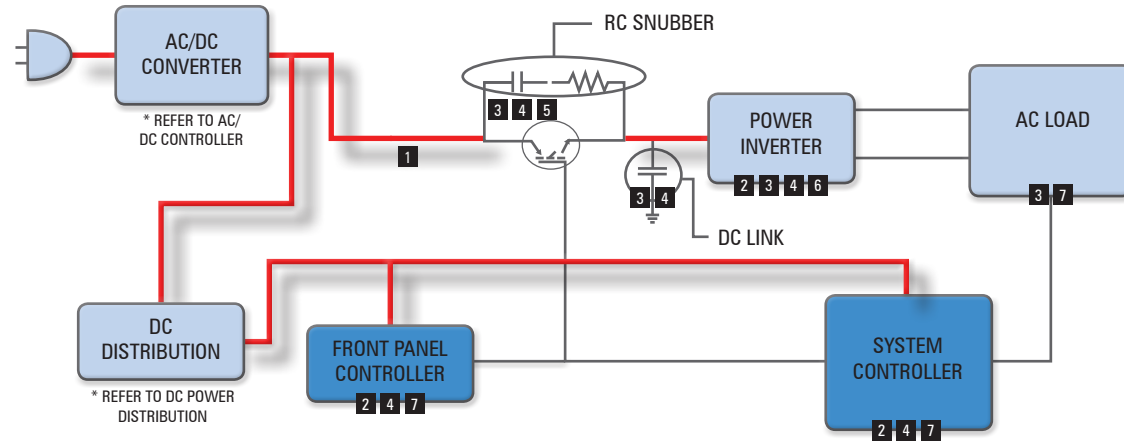
HOW IS THE EQUIPMENT POWERED (AC LINE OR 48V DC)?

DOES YOUR DESIGN NEED A "LAN BYPASS" OR "FAIL OVER" RELAY?

# HIGH EFFICIENCY APPLIANCES



POWER BLOCKS    DIGITAL BLOCKS



**1** EMI CORE  
ESD



**2** ALUMINUM ELECTROLYTIC  
EDH, EDK, ESK, ESH, ELH, ELG



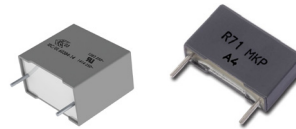
**3** FILM  
C4AE



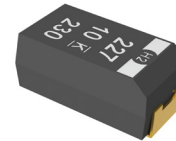
**4** MLCC  
COG, X7R, X5R



**5** FILM OR RC SNUBBER  
R71, R73, R76, C4AS, F43



**6** POLYMER TANTALUM  
T520, T521



**7** RADIAL SUPERCAPACITOR  
FG, FE, FM, FR



## FREQUENTLY ASKED QUESTIONS

ARE YOU USING AN INVERTER TO DRIVE THE MOTORS IN THIS APPLICATION?

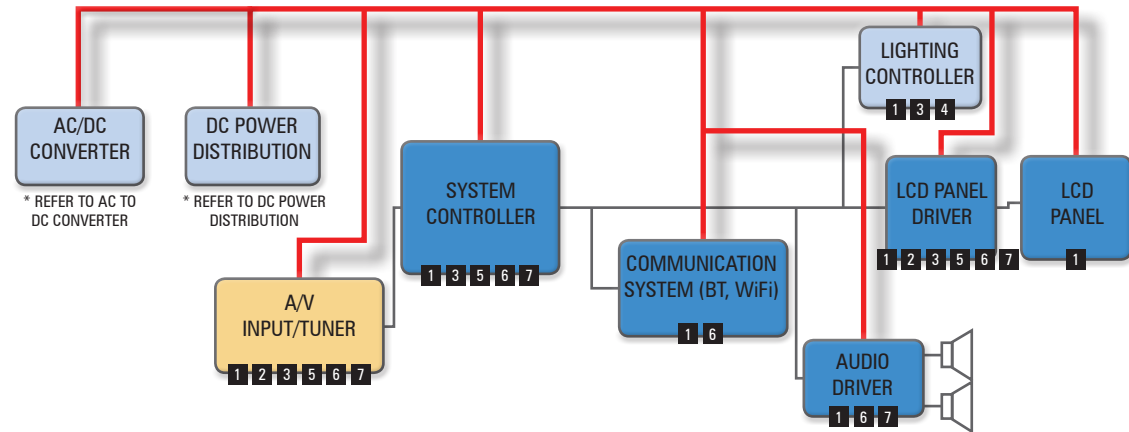
ARE YOU USING AN INVERTER TO DRIVE THE MOTORS?

WHAT ARE THE OPERATING VOLTAGES OF THE CONTROLLER AND THE MOTORS?

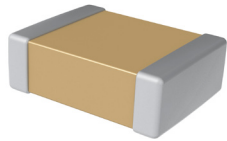
WHAT IS THE APPLICATION OF THE SYSTEM?

# FLAT PANEL TV

■ POWER BLOCKS   
 ■ DIGITAL BLOCKS   
 ■ RF/ANALOG BLOCKS



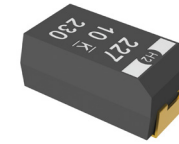
**1 MLCC**  
X7R, X5R



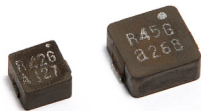
**2 CHIP FILTER**  
M-500CT, M-600T



**3 POLYMER TANTALUM**  
T520, T521



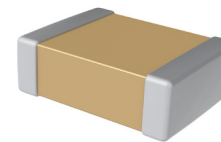
**4 POWER INDUCTOR**  
MPC, CPI, HDI, PLC, SBS



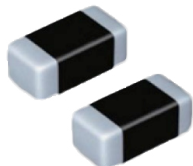
**5 FLEX SUPPRESSOR**  
EFH, EFG, EFF



**6 MLCC**  
COG



**7 INDUCTORS**  
PWS, PWI, PWR, PWF



## FREQUENTLY ASKED QUESTIONS

WHAT TYPE OF BACKLIGHT SYSTEM ARE YOU USING?

WHAT TYPE OF WIRELESS CONNECTIVITY OPTIONS DOES YOUR SYSTEM HAVE?

WHAT IS YOUR POWER CONSUMPTION TARGET FOR THE WHOLE SYSTEM?



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March 12, 2015

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