

## RUGGED FIBER/COPPER KVM EXTENDERS

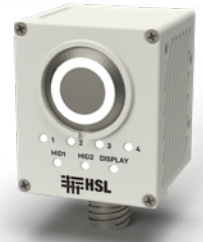


FKCE11PH60-NTR

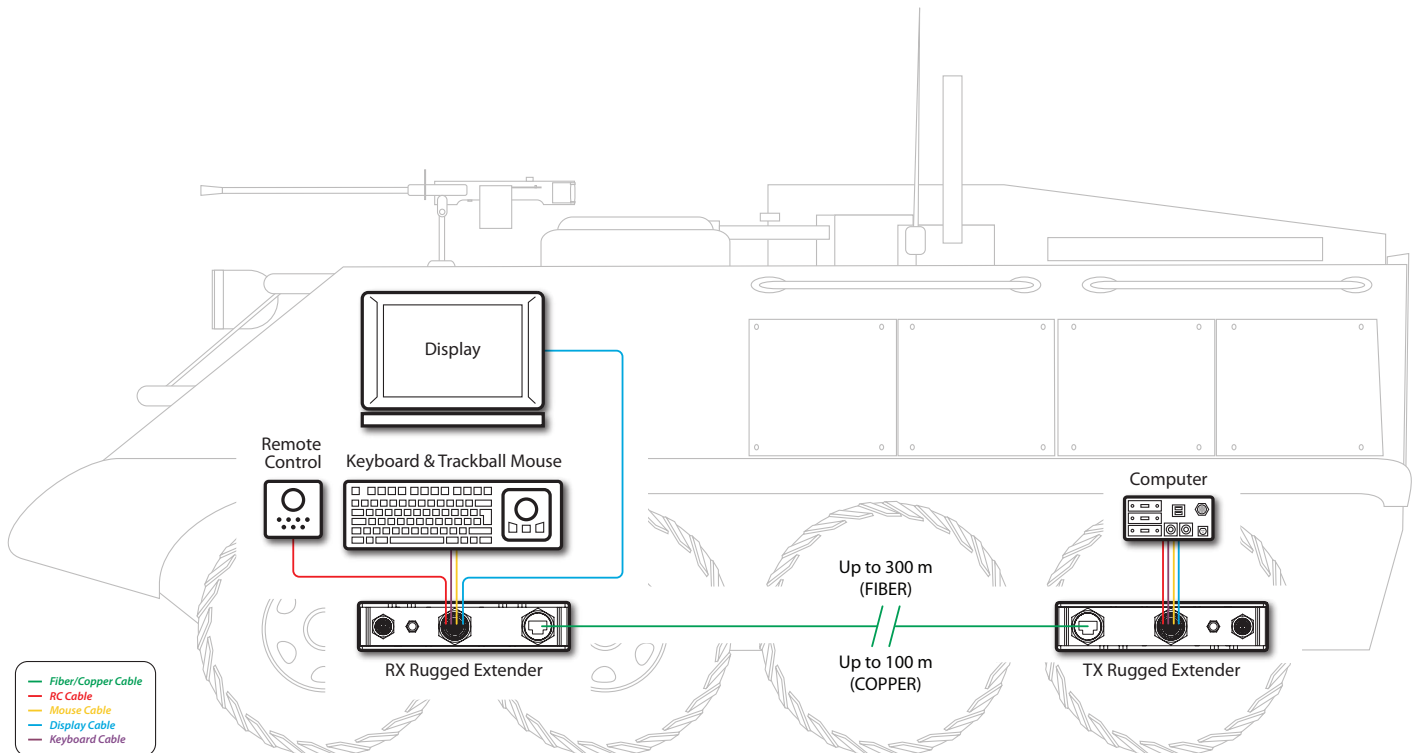
HSL's rugged, TEMPEST compliant, MIL-SPEC extenders facilitate installations where operators, computer sources and KVM switching products are distanced from each other.

The rugged extenders, available in copper or fiber versions, extend keyboard, mouse/trackball, touchscreen commands, 4K video, analog audio, USB and RS232 remote control signals across up to 100m over copper, and up to 300m over fiber.

HSL's family of rugged remote controls, or any compatible RS-232 controller, can be used together with the rugged extenders to control a rugged KVM switch product distanced from the operator.



Rugged Remote



## SPECIFICATION

MODEL	FKCE11PH60-NTR	FKFE11PH60-NTR
<b>MAIN FEATURES</b>		
<b>Dimensions</b>	216.9 W x 215 D x 43.6 H mm (8.54 x 8.46 x 1.71 inch)	
<b>Extension Type</b>	Copper	Fiber
<b>Link Port</b>	RJ45	Data speed: 10 Gbps Wavelength: 850nm
<b>RECEIVER UNIT (RX)</b>		
	FKCE11PH60R-NTR	FKFE11PH60R-NTR
<b>Display</b>	1xHDMI signals	1xHDMI signals
<b>Max Output Resolution</b>	Up to UHD 4K resolutions 3840x2160 @ 60 Hz	Up to UHD 4K resolutions 3840x2160 @ 60 Hz
<b>USB</b>	2 x HID USB 1 x USB 2.0	2 x HID USB 1 x USB 2.0
<b>Analog Audio</b>	Supported	Supported
<b>RS232</b>	Supported	Supported
<b>TRANSMITTER UNIT (TX)</b>		
	FKCE11PH60T-NTR	FKFE11PH60T-NTR
<b>Displays</b>	1 x HDMI/DP signals	1 x HDMI/DP signals
<b>Max Output Resolution</b>	Up to UHD 4K resolutions 3840x2160 @ 60 Hz	Up to UHD 4K resolutions 3840x2160 @ 60 Hz
<b>USB</b>	1 x HID USB 1 x USB 2.0	1 x HID USB 1 x USB 2.0
<b>Analog Audio</b>	Supported	Supported
<b>RS232</b>	Supported	Supported
<b>ENVIRONMENTAL (PARTIAL LIST)</b>		
<b>Shock</b>	MIL-STD-810G, Method 516.7 Procedure I with a peak amplitude of 40 ± 4.0g	
<b>Vibration</b>	MIL-STD-810G, Method 514.7 Procedure I for operational use on a Category 20 wheeled Ground Vehicles	
<b>Humidity</b>	MIL-STD-810G, Method 507.6, Procedure I based upon Table 507.6-I	
<b>Temperature</b>	Operating - 46°C to 52°C (-51°F to 125°F); Storage -51°C to 71°C (-60°F to 160°F)	
<b>Altitude</b>	MIL-STD-810G, Method 500.6 Procedure I	
<b>Immersion</b>	MIL-STD-810G, Method 512.6 Procedure I to a depth of 3 meters in fresh water	
<b>Salt Fog</b>	MIL-STD-810G, Method 509.6.	
<b>Blowing Sand</b>	MIL-STD-810G, Method 510.6 Procedure II with 10.6 to 17.7 grams per cubic meter (g/m3)	
<b>Blowing Dust</b>	MIL-STD-810G, Method 510.6 Procedure I with 0.006 g/m3 silica flour dust from 0.0001mm to 0.01mm in diameter blowing at a velocity of 1.5 ±0.2 m/s	

MODEL	FKCE11PH60-NTR	FKFE11PH60-NTR
<b>POWER (TX/RX)</b>		
<b>DC Input</b>	Nominal Power Input 28VDC (18V-36V)	
<b>Power requirements</b>	40W max power consumption	
<b>REGULATORY COMPLIANCE</b>		
<b>Safety</b>	MIL-STD-882	
<b>EMI/EMC</b>	MIL-STD-461	
<b>Tests</b>	CE102, CS101, CS114, CS115, CS116, RE102, RE103, CE101	
<b>Security</b>	Designed to TEMPEST Level A compliance	
<b>RELIABILITY</b>		
<b>Standard</b>	MIL-HDBK-216	
<b>MTBF</b>	65,000 hours of operation at 40°C	
<b>HOW TO ORDER</b>		
<b>Extender Transmitter</b>	FKCE11PH60T-NTR	
<b>Extender Receiver</b>	FKFE11PH60R-NTR	
<b>Extender Transmitter &amp; Receiver Kit</b>	FKCE11PH60-NTR	

RELATED PRODUCTS	WR40-4TR/WK80-4TR/WX80-4TR
<b>Protocol</b>	RS-232
<b>Baud Rate</b>	115200 bit/s
<b>Power</b>	5VDC from KVM or extender
<b>Switching Method</b>	Cyclic Switching
<b>Active Channel Indication</b>	LED



FKFE11PH60-NTR