THE LONG-DISTANCE SOLUTION FOR HIGH-RESOLUTION VIDEO SIGNALS

COBRA™

TWISTED PAIR PRODUCTS

LONG-DISTANCE VIDEO, AUDIO AND RS-232 SIGNAL ROUTING AND MANAGEMENT WITH KRAMER COBRA PRODUCTS

AV and control signals in today's business, education and home entertainment markets need to go further than ever. Not just composite video, but also high-resolution computer graphics video, which makes long distance transmission even more difficult. Kramer's Cobra Twisted Pair line of CAT 5 products are the solution to these distance challenges. With Cobra products your high-quality, long-distance signal distribution and signal management needs are easily met!

*To see our most current Cobra product offerings and our full line of signal management solutions please visit our web site at www.kramerelectronics.com.

COBRA™

TWISTED PAIR PRODUCTS

INTRODUCING KRAMER'S COBRA TWISTED PAIR FAMILY OF HIGH-PERFORMANCE PRODUCTS FOR SENDING HIGH-RESOLUTION VIDEO AND COMPUTER GRAPHICS VIDEO SIGNALS OVER GREAT DISTANCES ALONG WITH AUDIO AND RS-232 CONTROL SIGNALS.

KRAMER IS A LEADER IN UTILIZING HIGH PERFORMANCE CAT 5 TWISTED PAIR TECHNOLOGY TO SEND HIGH-RESOLUTION VIDEO, AUDIO AND CONTROL SIGNALS OVER LONG DISTANCES.

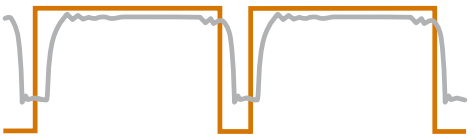
Kramer's new line of Cobra Twisted Pair video over CAT 5 transmission devices are designed for the long haul. Unlike competing technologies, Cobra products go the distance without relying on any "up to" specifications. With our Tru-Sync™ technology and Multi-Pole Filtering™, they deliver rock solid 1920x1200 resolution images all the way to 1300 feet (396 meters). Add in some of Kramer's HDTP ultra low skew twisted pair cable designed specifically for long distance video use, and you have a team of marathon performers.

HIGH RESOLUTION SIGNAL DISTRIBUTION AND SIGNAL MANAGEMENT OVER LONG DISTANCES

In today's Pro AV and residential AV marketplace, the challenge of proper signal management over long distances is greater than ever. Self contained, single room systems are becoming the exception, not the rule. If you have a number of high quality sources, you want to leverage them over a wider "AV Network" so each of the displays you own can receive content from those core source devices. The distances over which such an "AV Network" may exist can be expansive and the signals in use today are very high resolution, with millions of pixels that must be transmitted and accurately displayed over these great distances.

Enter Kramer's Cobra Twisted Pair line of CAT 5 products. Our Cobra line has been carefully engineered to provide a high quality solution to address all these challenges. With Cobra products from Kramer Electronics, it is not simply point to point transmission and reception. The Cobra family of products offer flexible distribution options that make it easy to build a system with multiple sources and multiple destinations. And, Kramer Cobra products accomplish all this by utilizing cost effective CAT 5 type UTP or STP twisted pair cable.

TRU-SYNC™ AND MULTI-POLE FILTERING™ TECHNOLOGIES



Shown here are normal sync pulses in orange overlaid on top of bad sync pulses in gray that have become rounded off due to attenuation caused by long distance transmission.

UTP video signal transmission suffers from the same problems as "traditional" video and audio transmission - transmission line attenuation and frequency dependant roll off. Attenuation, or signal loss, occurs in all transmission lines. However, with the long distance capabilities of TP transmission special attention must be given to this problem.

Kramer's True-Sync and Multi-Pole Filtering technologies are just two features that separate the Cobra Twisted Pair products from competing technologies.

In today's environment of digital displays, correct sync processing is essential. Previous technologies, such as CRT displays, were quite forgiving when dealing with Sync signals. Not so with today's digital displays. Simply transmitting the sync signals with twisted pair technologies is not sufficient to achieve proper images, especially over long distances. Attenuation causes sync pulses to become "distorted". This affects the rise time and amplitude of the signal which affects a displays' ability to re-create a proper image. Jittery images, shifted images, and no image at all are typical results.

Kramer's Tru-Sync Technology puts an end to these sync problems. Rather than simply transmitting the original sync signals over a UTP cable, Tru-Sync creates a digital representation of the sync signal. This digital "key" allows Cobra Receivers to re-create a perfect copy of the sync signal where it belongs - at the display device. Unlike less sophisticated equipment that relies on "common-mode" or "side-channel" signaling, Tru-Sync is an edge triggered process. In this process the encoded data is transmitted with the video signals to preserve accurate timing between sync and video. As a result, Cobra products maintain proper video image centering without the need for any adjustments.

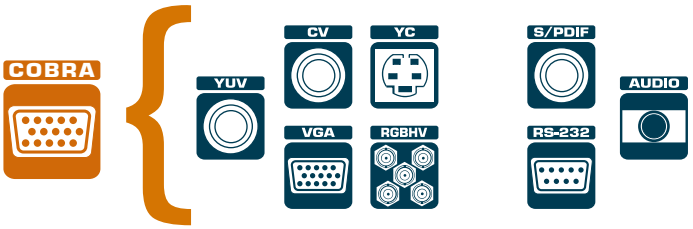
What about video? Like sync signals, attenuation and roll off cause problems with video, as well.

Most competing technologies compensate for attenuation over one or two frequency points in the video passband. With this traditional approach, it is impossible to reproduce accurate rise times while maintaining proper step function in the video signal. The result is soft, blurry images, with a "smeared" appearance that lack the resolution and definition of the original video source.

Cobra products incorporate a revolutionary Multi-Pole Filtering technique, providing UTP attenuation and roll off correction over 10 separate frequency points on the video passband. Advanced noise-density-control filters augment the multi-pole EQ filters by ensuring that only the desired signals are amplified and not the background noise.

The Result? Extremely high resolution video transmission over very long distances.

MULTIPLE VIDEO SIGNAL FORMATS AVAILABLE



All of Kramer's Cobra Twisted Pair transmission and signal processing models have the added benefit of being able to handle multiple video signal formats. Cobra models work with RGBHV, composite video, s-Video and component video signals. Simply input the signal format your application is built upon.

Note: All video signals are input to, and output from, of Cobra transmitters and receivers on a 15-pin HD connector. For composite video, s-Video, component and RGBHV video signals, use the appropriate break-out cable. Kramer offers a complete line of cables including break -out cables for each of these signal types to match the 15-pin HD inputs and outputs on Cobra products.

FLEXIBLE SIGNAL AND DISTANCE OPTIONS

Whether you need to send Video or Computer Graphics Video, with or without audio or RS-232 signals, the Cobra line is flexible enough to accommodate almost any need. The Cobra line offers solutions for both 1600 x 1200 resolution images at 500 foot (152 meter) distances and 1920 x 1200 resolution images at 1300 foot (396 meter) distances. The Cobra line also includes a Decora wall plate transmitter to provide even more installation options.

Simply choose a Cobra transmitter with the combination of video, audio and RS-232 capability that your application requires. Then choose a corresponding Cobra receiver compatible with signal resolutions of 1600 x 1200 at 500 feet (152 meters) or a receiver compatible with signal resolutions of 1920 x 1200 at 1300 feet (396 meters). The Cobra receivers determine the resolution and distance. Following this text is an easy to use chart that illustrates the combinations available.

All Cobra units support composite video, s-Video, component video and RGBHV computer graphics video. The Cobra models that support RS-232 support bi-directional RS-232 use.

TRANSMITTERS	RECEIVERS			
	R500A	R500-2	R1300A	R1300S2
Cobra TA	✓		✓	
Cobra TWA	✓		✓	
Cobra T2		✓		
Cobra TS2				✓

• A - Audio • W - Wall Plate • 2 - RS-232 • S - Stereo

NOTE: Kramer Cobra products are not compatible with other Twisted Pair transmitters and receivers in the Kramer family of products. Cobra products are only compatible with other Cobra models per the chart listed above.

* The Cobra product offering from Kramer may vary between different regions of the world. Please check with your local Kramer sales office to see what is available in your region.

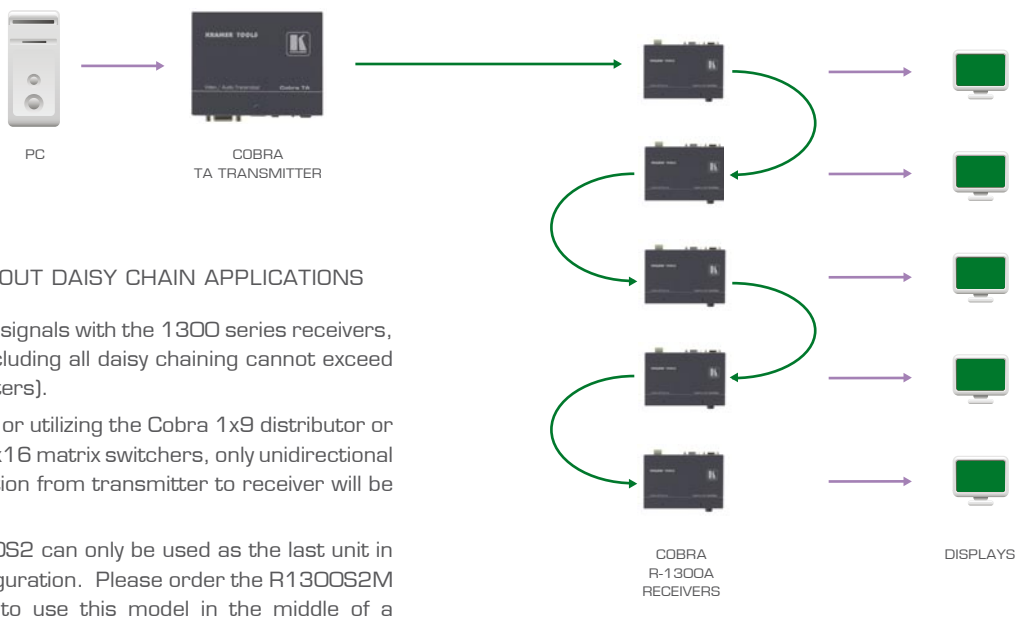
MULTIPLE DISTRIBUTION OPTIONS

Cobra products can be used to create very robust yet simple systems involving many sources and displays. The 1300 series receivers have daisy chaining capability and the Cobra family includes a 1x9 distributor, an 8x8 matrix switcher and a 16x16 matrix switcher. The Cobra distributor and both matrix switchers support all video, audio and RS-232 modes of the transmitters and receivers. When daisy chaining 1300 series receivers or using the distributor or matrix switchers, only unidirectional RS-232 communication is supported. Kramer's Cobra line provides the ultimate in high resolution, long distance signal distribution and management for today's AV systems.

* Please Note - The standard R1300S2 can only be used as the last unit in any daisy chain configuration. Please order the R1300S2M version if you want to use this model in the middle of a series of units daisy chained together in a system.

Fig. 1

Cobra product in daisy chain configuration

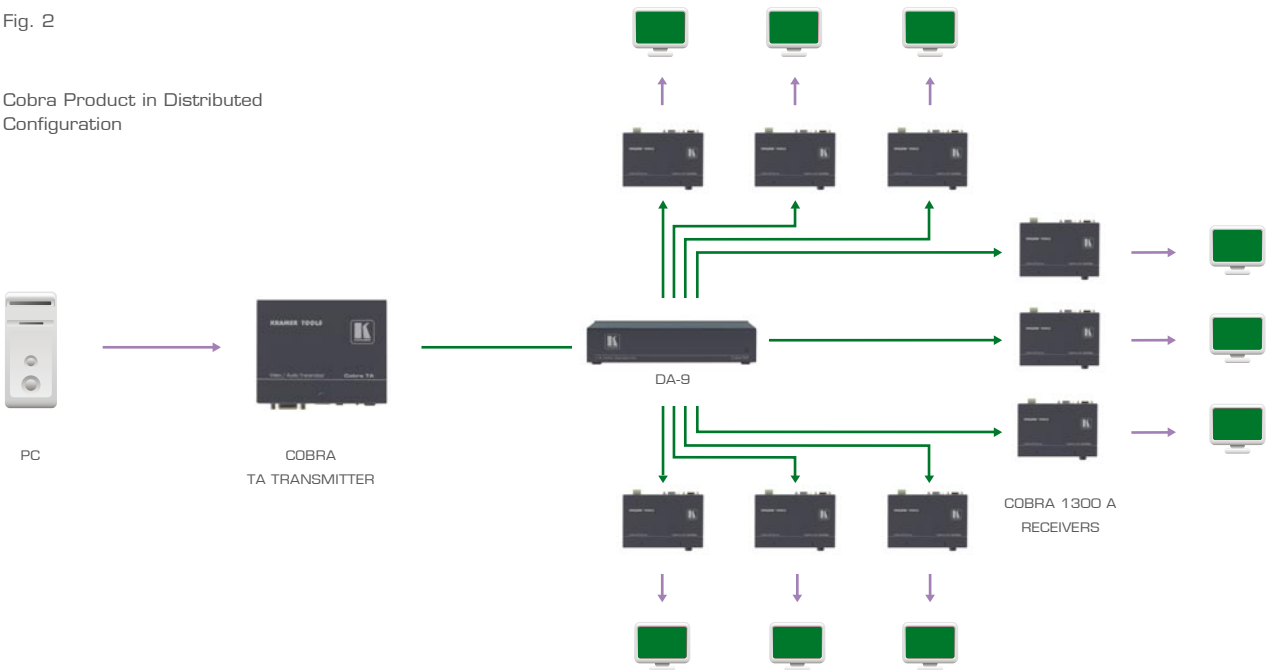


IMPORTANT NOTES ABOUT DAISY CHAIN APPLICATIONS

- When daisy chaining signals with the 1300 series receivers, the total distance including all daisy chaining cannot exceed 1300 feet (396 meters).
- When daisy chaining or utilizing the Cobra 1x9 distributor or the Cobra 8x8 or 16x16 matrix switchers, only unidirectional RS-232 communication from transmitter to receiver will be available.
- The standard R1300S2 can only be used as the last unit in any daisy chain configuration. Please order the R1300S2M version if you want to use this model in the middle of a series of units daisy chained together in a system.

Fig. 2

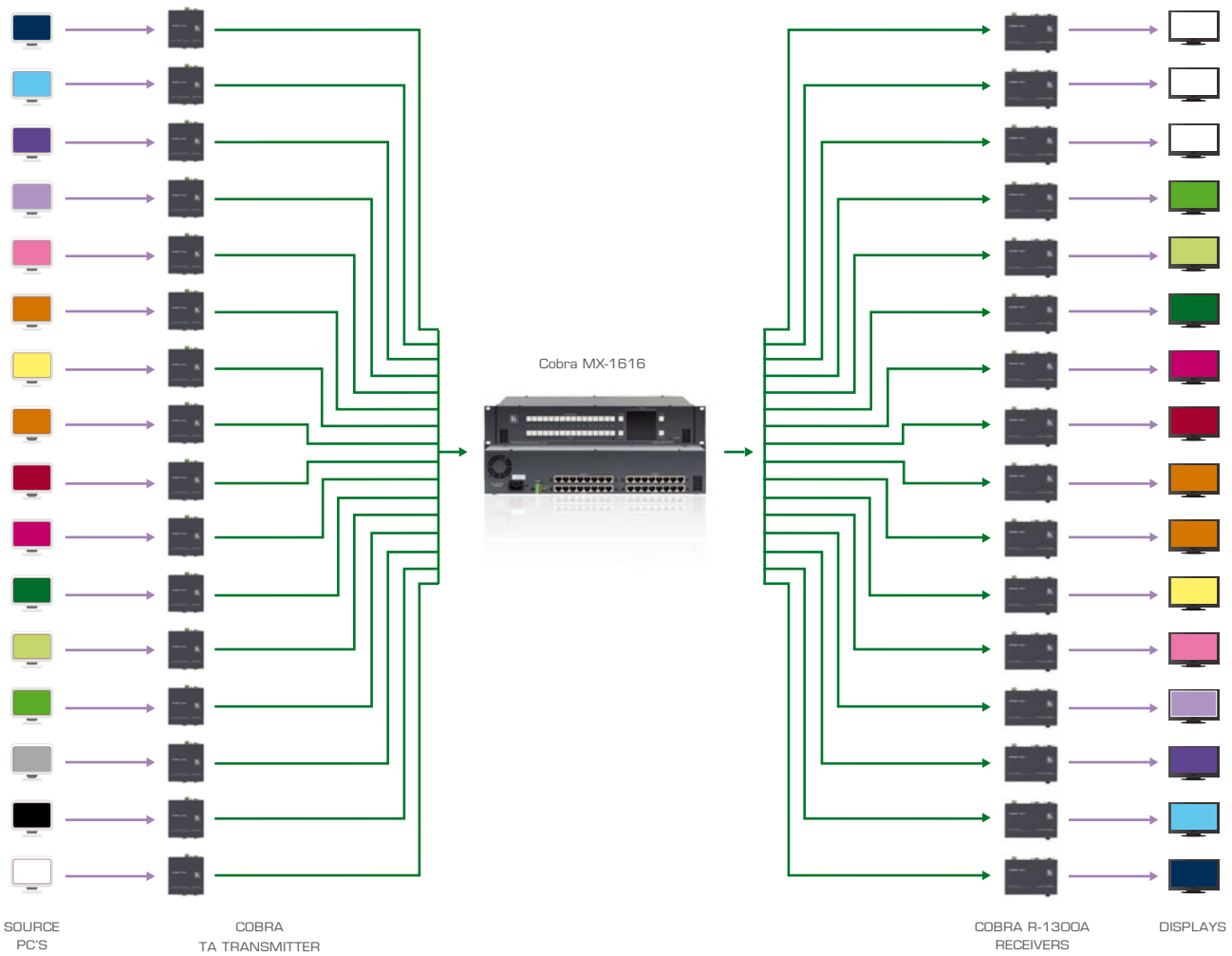
Cobra Product in Distributed Configuration



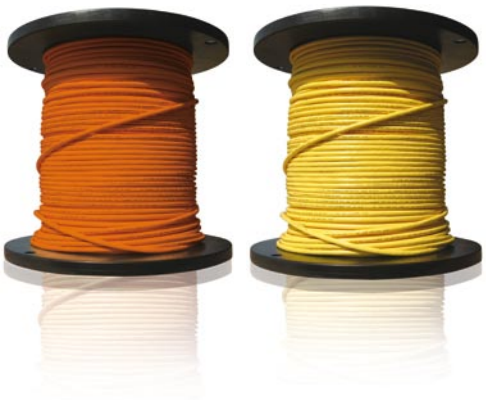
Twisted Pair Cable VGA Cable

Fig. 3

Cobra Product in a Matrix
Switching Configuration



KRAMER HIGH QUALITY TWISTED PAIR CABLE



BCP-HDTP BC-HDTP

Kramer is pleased to introduce a new precision quality cable which is an ideal complement to the Cobra Twisted Pair series. BC-HDTP and BCP-HDTP cables are optimized for use with video over Cat 5 products. This includes Cobra as well as previous generation Kramer models.

HDTP is an ultra-low skew configuration in which the individual twisted pairs inside the jacket lay in a manner that no matter where you cut the cable, the pairs will be the same length. This results in the Red, Green, and Blue information all arriving at the destination at the same time, virtually eliminating skew errors and, in most cases, the need for electronic skew compensation.

Kramer HDTP cables are engineered and manufactured to an extremely high standard to provide the ultimate in low skew performance. Use BC-HDTP, with its muted yellow outer jacket for non-plenum applications, and BCP-HDTP, with a muted orange outer jacket when a plenum rating is required.

FUNDAMENTALS OF TWISTED PAIR TRANSMISSION – BALANCED VERSUS UNBALANCED

When a signal travels down a length of cable, it becomes attenuated. Several factors act negatively on that signal. Kramer's Cobra products use Tru-Sync technology to ensure that the front and back porch sync signals, or start of video and end of video signals, are sharp after a long distance run, thus overcoming the effects of attenuation. They also employ Multi-pole Filtering technology to further compensate for signal attenuation due to distance.

As for noise, twisted pair transmission systems are balanced to help overcome that problem. As a signal moves down a cable, noise is induced. At the end of a run, both the signal and noise are present and in an unbalanced system they are both received and processed by the display.

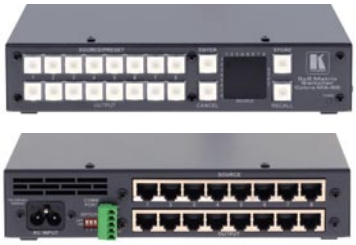
In a balanced system, two identical versions of the signal are sent down two lines, one inverted 180 degrees from the other. As the signals travel down the lines, noise is induced equally in both signals. At the end of the run, the receiver employs a differential amplifier. A differential amplifier amplifies what is different and not what is the same in the two signals. Since the source signals are 180 degrees out of phase and therefore different, they are amplified and passed to the display. The noise in both lines is the same, so it is not amplified or passed by the differential amplifier and it is effectively canceled. This is why twisted pair, balanced signal transmission has an inherent advantage over single conductor unbalanced transmission systems, especially for long distance applications.

COBRA DA-9 1:9 TWISTED PAIR DISTRIBUTION AMPLIFIER

The Cobra DA9 is a distribution amplifier for twisted pair signals. It takes a twisted pair input and distributes it to nine identical twisted pair outputs.

FEATURES

- Resolution - Up to WUXGA (1920x1200).
- HDTV Compatible.
- Twisted Pair Input/Output - RJ-45 connectors.
- System Range - 1300' (396m). Receiver dependent.
- Control Data Distribution - Simplex only.
- Compatible Only with Kramer Cobra Series Transmitters & Receivers.
- Use Kramer BC-HDTP Ultra Low Skew UTP Cable For Best Results.
- Desktop Size - Compact size. Can be rack mounted in a 1U rack space with the optional Cobra DM adapter.

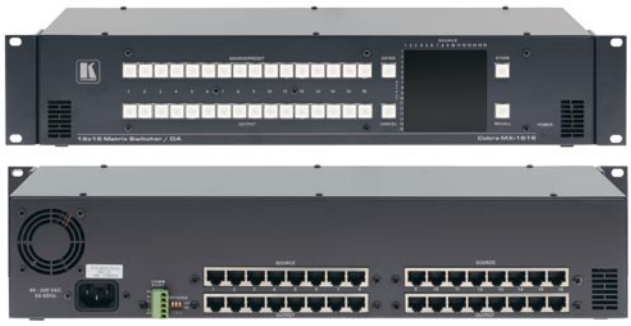


COBRA MX-88 8X8 TWISTED PAIR MATRIX SWITCHER

The Cobra MX-88 is a matrix switcher for twisted pair signals. The unit can switch any or all inputs to any or all outputs simultaneously.

FEATURES

- Resolution - Up to WUXGA (1920x1200).
- HDTV Compatible.
- Twisted Pair Input/Output - RJ-45 connectors.
- Enter, Cancel, Store & Recall Buttons - Program, store and execute multiple switches all at once.
- Control - Front panel & RS-232.
- Control Data Switching - Simplex only.
- System Range - Up to 1300' (396m). Receiver dependent.
- Use Kramer BC-HDTP Ultra Low Skew UTP Cable For Best Results.
- Compatible Only with Kramer Cobra Series Transmitters & Receivers.
- Desktop Size - Compact size. Can be rack mounted in a 1U rack space with the optional Cobra DM adapter.



COBRA MX-1616 16X16 TWISTED PAIR MATRIX SWITCHER

The Cobra MX-1616 is a matrix switchers for twisted pair signals. The unit can switch any or all inputs to any or all outputs simultaneously.

FEATURES

- Resolution - Up to WUXGA (1920x1200).
- HDTV Compatible.
- Twisted Pair Input/Output - RJ-45 connectors.
- Enter, Cancel, Store & Recall Buttons - Program, store and execute multiple switches all at once.
- Control - Front panel & RS-232.
- Control Data Switching - Simplex only.
- System Range - Up to 1300' (396m). Receiver dependent.
- Compatible Only with Kramer Cobra Series Transmitters & Receivers.
- Use Kramer BC-HDTP Ultra Low Skew UTP Cable For Best Results.
- Standard 19" Rack Mount Size - 2U.

COBRA R500A MULTI-FORMAT VIDEO & MONO AUDIO TWISTED PAIR RECEIVER

The Cobra R500A is a twisted pair receiver for multi-format video and mono audio signals. The unit converts a twisted pair signal back into its original video format (composite video, s-Video, component video and computer graphics video) and 2 channels of mono (summed stereo) audio.

FEATURES

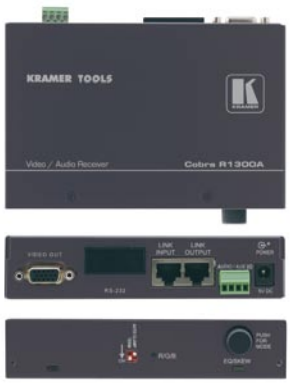
- Resolution - Up to UXGA (1600x1200).
- HDTV Compatible.
- Input - RJ-45.
- Outputs - 15-pin HD (for composite, s-Video, component, & computer graphics video) and 3.5mm for 2 channels of mono audio.
- 15-pin HD Input - Use a breakout cable for CV, Y/C & component signals.
- Audio Outputs - The original stereo audio signal is converted to 2 summed (L+R) mono signals by the transmitter.
- EQ Control - 4 dip switch settings.
- Tru-Sync™ Technology - Ensures accurate sync reproduction over long distance transmission resulting in a stable and properly centered video image on the display.
- Multi-Pole Filtering™ Technology - Advanced UTP attenuation and roll off correction for long distance video transmission ensures clear, sharp images on the display.
- System Range - 500' (152m) at UXGA (1600x1200).
- Use Kramer BC-HDTP Ultra Low Skew UTP Cable For Best Results.
- Compact Kramer TOOLS™ - Built-in mounting bracket.

COBRA R500-2 MULTI-FORMAT VIDEO & RS-232 TWISTED PAIR RECEIVER

The Cobra R500-2 is a twisted pair receiver for multi-format video and RS-232 signals. The unit converts a twisted pair signal back into its original video format (composite video, s-Video, component video and computer graphics video) and RS-232.

FEATURES

- Resolution - Up to UXGA (1600x1200).
- HDTV Compatible.
- Input - RJ-45.
- Outputs - 15-pin HD (for composite, s-Video, component, & computer graphics video) and a 3.5mm (Tx, Rx, Gnd) for RS-232.
- 15-pin HD Input - Use a breakout cable for CV, Y/C & component signals.
- EQ Control - 4 dip switch settings.
- Data Mode - Up to 19.2Kbps (duplex) and 115Kbps (simplex).
- Tru-Sync™ Technology - Ensures accurate sync reproduction over long distance transmission resulting in a stable and properly centered video image on the display.
- Multi-Pole Filtering™ Technology - Advanced UTP attenuation and roll off correction for long distance video transmission ensures clear, sharp images on the display.
- System Range - 500' (152m) at UXGA (1600x1200).
- Use Kramer BC-HDTP Ultra Low Skew UTP Cable For Best Results.
- Compact Kramer TOOLS™ - Built-in mounting bracket.



COBRA R1300A MULTI-FORMAT VIDEO & MONO AUDIO TWISTED PAIR RECEIVER

The Cobra R1300A is a twisted pair receiver for multi-format video and mono audio signals. The unit converts a twisted pair signal back into its original video format (composite video, s-Video, component video and computer graphics video) and 2 channels of mono (summed stereo) audio.

FEATURES

- Resolution - Up to WUXGA (1920x1200).
- HDTV Compatible.
- Input - RJ-45.
- Looping Input.
- Outputs - 15-pin HD (for composite, s-Video, component, & computer graphics video) and a terminal block for 2 channels of mono audio.
- 15-pin HD Input - Use a breakout cable for CV, Y/C & component signals.
- EQ Control - Rotary knob.
- Skew Compensation - Optional.
- Clamping - RGBHV or Auto-sensing.
- Tru-Sync™ Technology - Ensures accurate sync reproduction over long distance transmission resulting in a stable and properly centered video image on the display.
- Sync Settings - Tru-Sync™ (default), Polarity (H&V) & fixed.
- Multi-Pole Filtering™ Technology - Advanced UTP attenuation and roll off correction for long distance video transmission ensures clear, sharp images on the display.
- System Range - 1300' (396m) at WUXGA (1920x1200).
- Use Kramer BC-HDTP Ultra Low Skew UTP Cable For Best Results.
- Compact Kramer TOOLS™ - RWM U-shaped mounting bracket available.

COBRA R1300S2 MULTI-FORMAT VIDEO, STEREO AUDIO & RS-232 TWISTED PAIR RECEIVER

The Cobra R1300S2 is a twisted pair receiver for multi-format video, stereo audio and RS-232 signals. The unit converts a twisted pair signal back into its original video format (composite video, s-Video, component video and computer graphics video), stereo or S/PDIF audio and RS-232.

FEATURES

- Resolution - Up to WUXGA (1920x1200).
- HDTV Compatible.
- Input - RJ-45.
- Looping Input.
- Outputs - 15-pin HD (for composite, s-Video, component, & computer graphics video), 9-pin D for RS-232 and terminal block for stereo or S/PDIF audio (selected by internal dip switches to match the transmitter).
- 15-pin HD Input - Use a breakout cable for CV, Y/C & component signals.
- EQ Control - Rotary knob.
- Skew Compensation - Optional.
- Clamping - RGBHV or Auto-sensing.
- Tru-Sync™ Technology - Ensures accurate sync reproduction over long distance transmission resulting in a stable and properly centered video image on the display.
- Sync Settings - Tru-Sync™ (default), Polarity (H&V) & fixed.
- Multi-Pole Filtering™ Technology - Advanced UTP attenuation and roll off correction for long distance video transmission ensures clear, sharp images on the display.
- System Range - 1300' (396m) at WUXGA (1920x1200).
- Daisy Chain Applications - For applications where the R1300S2 model will be used in the middle of a series of units daisy chained together, use the model R1300S2M. The standard R1300S2 receiver will only work as a standalone receiver or as the last unit in any daisy chain configuration.
- Use Kramer BC-HDTP Ultra Low Skew UTP Cable For Best Results.
- Compact Kramer TOOLS™ - RWM U-shaped mounting bracket available.

COBRA TA MULTI-FORMAT VIDEO & MONO AUDIO TWISTED PAIR TRANSMITTER

The Cobra TA is a twisted pair transmitter for multi-format video and stereo audio signals. The unit converts composite video, s-Video, component video or computer graphics video, combines (sums) the stereo into mono audio and converts both signals into a twisted pair signal.

FEATURES

- Resolution - Up to WUXGA (1920x1200).
- HDTV Compatible.
- Inputs - 15-pin HD (for composite, s-Video, component, & computer graphics video) and 3.5mm (for stereo audio).
- 15-pin HD Input - Use a breakout cable for CV, Y/C & component signals.
- Output - RJ-45.
- Audio Input - Stereo audio is converted to a summed (L+R) mono signal.
- Tru-Sync™ Technology - Ensures accurate sync reproduction over long distance transmission resulting in a stable and properly centered video image on the display.
- System Range - Receiver dependent.
- Use Kramer BC-HDTP Ultra Low Skew UTP Cable For Best Results.
- Compact Kramer TOOLS™ - TM-4 19" Rack Adapter or TMW U-shaped mounting bracket available.

COBRA TWA MULTI-FORMAT VIDEO & SUMMED AUDIO TWISTED PAIR TRANSMITTER & WALL PLATE

The Cobra TWA is a twisted pair transmitter for multi-format video and stereo audio signals. The unit converts composite video, s-Video, component video or computer graphics video, combines (sums) the stereo into mono audio and converts both signals into a twisted pair signal.

FEATURES

- Resolution - Up to WUXGA (1920x1200).
- HDTV Compatible.
- Inputs - 15-pin HD (for composite, s-Video, component, & computer graphics video) and 3.5mm (for stereo audio).
- 15-pin HD Input - Use a breakout cable for CV, Y/C & component signals.
- Output - RJ-45.
- Audio Input - Stereo audio is converted to a summed (L+R) mono signal.
- Tru-Sync™ Technology - Ensures accurate sync reproduction over long distance transmission resulting in a stable and properly centered video image on the display.
- System Range - Receiver dependent.
- Use Kramer BC-HDTP Ultra Low Skew UTP Cable For Best Results.
- Wall Plate - Single gang.

COBRA T2 MULTI-FORMAT VIDEO & RS-232 TWISTED PAIR TRANSMITTER

The Cobra T2 is a twisted pair transmitter for multi-format video and RS-232 signals. The unit converts composite video, s-Video, component video or computer graphics video and RS-232 to a twisted pair signal.

FEATURES

- Resolution - Up to WUXGA (1920x1200).
- HDTV Compatible.
- Inputs - 15-pin HD (for composite, s-Video, component, & computer graphics video) and 9-pin D (Tx, Rx, Gnd) for RS-232.
- 15-pin HD Input - Use a breakout cable for CV, Y/C & component signals.
- Looping Input.
- Output - RJ-45.
- AC or DC Coupling (Selectable).
- Data Mode - Up to 19.2Kbps (duplex) and 115Kbps (simplex).
- Tru-Sync™ Technology - Ensures accurate sync reproduction over long distance transmission resulting in a stable and properly centered video image on the display.
- Sync Settings - Tru-Sync™ (default) & fixed.
- System Range - Receiver dependent.
- Use Kramer BC-HDTP Ultra Low Skew UTP Cable For Best Results.
- Compact Kramer TOOLS™ - TM-4 19" Rack Adapter or TMW U-shaped mounting bracket available.

COBRA TS2 MULTI-FORMAT VIDEO, STEREO AUDIO & RS-232 TWISTED PAIR TRANSMITTER

The Cobra TS2 is a twisted pair transmitter for multi-format video, stereo or S/PDIF audio and RS-232 signals. The unit converts composite video, s-Video, component video or computer graphics video, stereo or S/PDIF audio and RS-232 to a twisted pair signal.

FEATURES

- Bandwidth - Up to WUXGA (1920x1200).
- HDTV Compatible.
- Inputs - 15-pin HD (for composite, s-Video, component, & computer graphics video), terminal block for stereo or S/PDIF audio (selected internally by dip switches) and 9-pin D (Tx, Rx, Gnd) for RS-232.
- 15-pin HD Input - Use a breakout cable for CV, Y/C & component signals.
- Looping Input.
- Outputs - RJ-45.
- AC or DC Coupling (Selectable).
- Data Mode - 9600 baud (fixed).
- Tru-Sync™ Technology - Ensures accurate sync reproduction over long distance transmission resulting in a stable and properly centered video image on the display.
- Sync Settings - Tru-Sync™(default) & fixed.
- System Range - Receiver dependent.
- Use Kramer BC-HDTP Ultra Low Skew UTP Cable For Best Results.
- Compact Kramer TOOLS™ - TM-4 19" Rack Adapter or TMW U-shaped mounting bracket available.

COBRA-RWM COBRA MOUNTING BRACKET

U-shaped mounting bracket for all Cobra R1300 series receivers.

FEATURES

- Mount a Cobra transmitter to another surface.

COBRA-SKEW SKEW ADJUSTMENT BOARD FOR COBRA R1300 SERIES RECEIVERS

The Cobra SKEW is a daughter-board that installs inside a Cobra R1300 series long range receiver. It corrects skew (delay) errors in long twisted pair cable runs which are seen as mis-convergence on the display.

FEATURES

- Adjustment Range - 65ns.

COBRA-TM-4 19" RACK ADAPTER

19" Rack Adapter for 4 Cobra Transmitters.

COBRA-TMB BLANK SLOT COVER FOR COBRA TM-4 RACK MOUNT

Blank plate to cover an unused slot on the TM-4 rack adapter

COBRA-TWM COBRA MOUNTING BRACKET

U-shaped mounting bracket for all Cobra Transmitters.

FEATURES

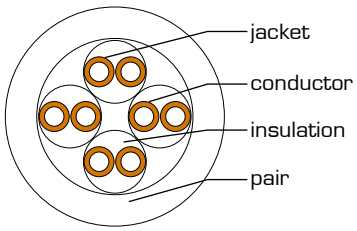
- Mount a Cobra transmitter to another surface.

TRANSMITTERS	RECEIVERS			
DA'S SWITCHERS	R500A	R500-2	R1300A	R1300S2
Cobra TA	✓		✓	
Cobra TWA	✓		✓	
Cobra T2		✓		
Cobra TS2				✓
Cobra DA-9	✓	*	✓	*
Cobra MX-88	✓	*	✓	*
Cobra MX-1616	✓	*	✓	*
* Serial Mode is uni-directional only				

NOTE: The Cobra product offering from Kramer may vary between different regions of the world. Please check with your local Kramer sales office to see what is available in your region.

BC-HDTP AND BCP-HDTP HIGH PERFORMANCE ULTRA LOW SKEW UTP CABLE

BCP-HDTP BC-HDTP



Kramer's HDTP is an unshielded twisted pair (UTP) type cable designed for use in the most demanding long distance video transmission over CAT 5/5e twisted pair cable applications, and is an ideal companion to Kramer's Cobra Twisted Pair™ series transmitter/receiver sets. HDTP resembles typical CAT 5/5e cable, but with internal components optimized for transmission of video/audio signals rather than high speed data.

- Quality Construction - Exceptionally durable, flexible, and easy to handle. Four pairs of solid 23 AWG copper in one jacket. BC-HDTP is CM and CMH rated with a muted yellow jacket, and BCP-HDTP is CMP and CL-2P plenum rated with a muted orange jacket.
- Precision Engineered - Four pairs are twisted at the same ratio so the actual length of each is identical. Note that HDTP is not suited for high speed data or network applications.
- Optimized for ultra high resolution video/audio signals - Designed to match the Cobra Twisted Pair hardware's high resolution capability of 1920x1200 resolutions signals transmitted 1300 feet (396 meters). HDTP is also an ideal choice for use with Kramer's non-Cobra models.
- Ultra Low Skew Performance - Video shift or "skew" is virtually eliminated in long runs because the RGB color signals arrive at the same time. Some skew compensation may still be required on extremely long runs, but the amount is significantly improved because of the ultra low skew design of HDTP.
- Two Lengths - Choose from 700 foot (213 meter) and 1300 foot (396 meter) "reel-in-a-box" style packaging.

MICRO VGA (HD-15) CABLE

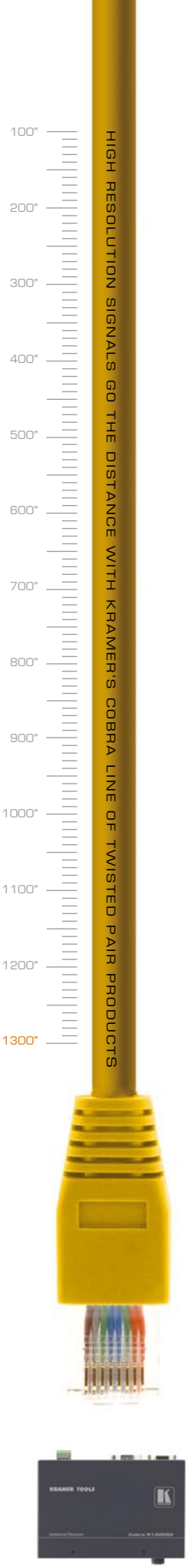
Kramer's MGM Micro computer graphics video cables are high performance cables with molded 15-pin HD connectors on both ends. These micro coax cables are thin and flexible and excellent choices for connecting computer graphics video signals between computers or video scalers and plasma, LCD or other popular display technologies.

- Quality construction - Constructed using micro coax conductors and outer diameter of 5.4mm (0.212 inch). The 15-pin HD connectors are specially designed with small profile to fit any high density installation and all 15 pins are passed through the cable.
- Multiple Applications - Ideal for video presentations, home theater and any installation in tight spaces. Use these cables with our table solutions for your comfort and efficiency.

VGA (HD-15) TO 3 RCA BREAKOUT MALE-MALE CABLE

Kramer's computer graphics video to component video breakout cables are constructed of 3 mini coax cables with a 15-pin HD (M) connector on one end and 3 RCA (M or F) connectors on the other. These cables can be used when a source or display can be configured to send or receive either computer graphics video or component video signals - for example, Kramer's VP-724xl scaler uses this adapter to support its HDTV output modes.

- High Quality Construction - Rugged and high resolution 3 mini coax cable with molded connectors.
- Numerous Applications - Allow Kramer 15-pin HD distribution amplifiers, switchers and scaler switchers to be used to route component video signals.



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