

Designated to all customers who do care about the videosignal quality

**Question:** Is it possible to use pasive twist converters for high-quality videosignal transmission ?

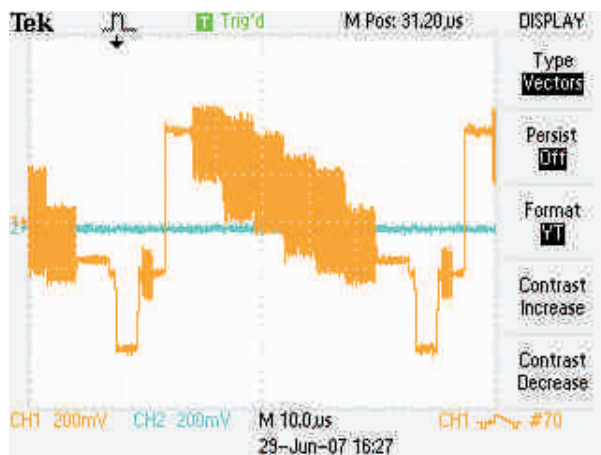
You can use passive twist converters but you have to take into account the following stated problems arising from their installation. We are able to repeat all the stated data and advocate our statements.

**Note:** passive twist converters = a passive transmitter or a transmitter and a receiver

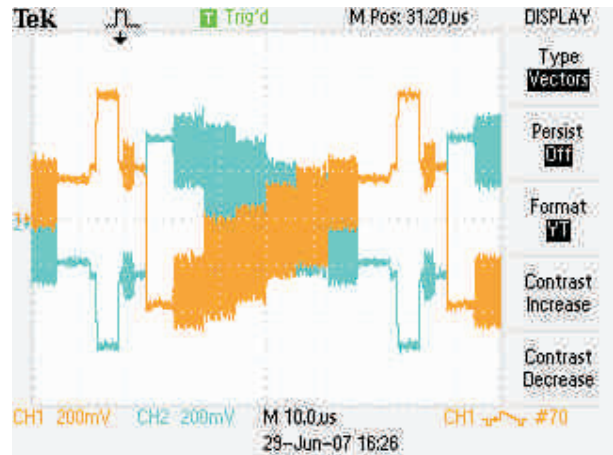
**1<sup>st</sup> PROBLEM - conversion to indeed balanced videosignal is usually missing**

The signal on the output of passive converters is usually unbalanced, i.e. behaves like it has been transferred over coaxial cable. Such converters should not even be marked by the abbreviation BALUN (balanced / unbalanced). Contingent buzz is then not subtracted on the receiver's input. Another problem is with transmission of more than just one signal over one cable which means increased probability of cross-talks.

**PASSIVE VERSION**



**ACTIVE VERSION - METEL**

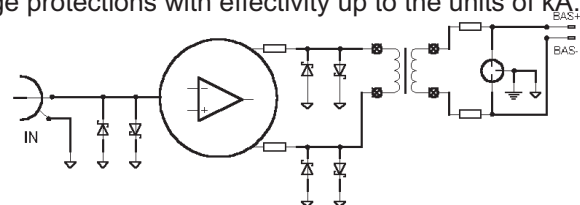


**2<sup>nd</sup> PROBLEM - overvoltage protection is not included**

Passive converters do not usually deal with protection from overvoltage which leads to the overvoltage getting into the device.

METEL converters are equipped with overvoltage protections with effectivity up to the units of kA.

**GMT Transmitter protections scheme**



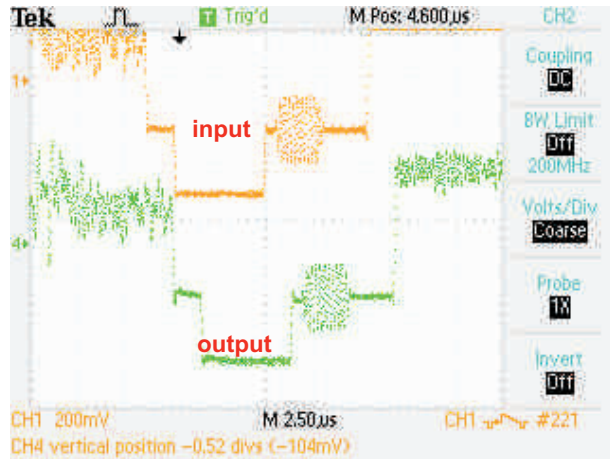
**3<sup>rd</sup> PROBLEM - galvanic line separation is not included**

All the ground loops close, in case of the use of passive converters, straight over the signal cable which can lead to the destruction of terminal devices. Every converter produced by METEL contains this separation.

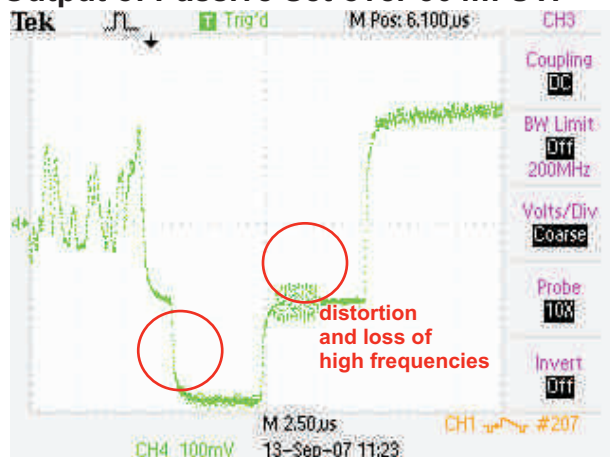
#### 4<sup>th</sup> PROBLEM - band frequency corrections with smooth setting

To set the high-quality videosegment along the whole transmission length declared by a producer band corrections are necessary. They enable to set the optimal frequency correction response. Passive converters completely lack this option. Below, a few samples of signal over 304 m UTP cable are shown.

#### Output of METEL TWIST-1200 over 304m UTP



#### Output of Passive Set over 304m UTP



#### CONCLUSION

Considering the fact that METEL Ltd. is a Czech company with more than ten-year tradition of development and production, it cannot, in contrast to some Asian importers, afford to produce low-quality goods. We are able to manufacture passive converters of similar quality such as the quality of imported goods. But I will never approve of such production because it would result in a significant increase of sales returns and cause damage to the good name of our company.

Yours faithfully

development and production director  
Tomáš Metelka

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