

## RF Link Amplifier FAQ

The following is a draft set of questions with their answers about the **RF Link Amplifier**: -

**Question** – What does the RF link Amplifier look like ?

**Answer** – The connections of the standard B&O link Amplifier pictured below: -



It comes in two versions and costs about £70. If you are in the UK you should order the type 4053 which has the return path P/N 1405366

**Question** – Can I fit the Link Amplifier to the back of my Beovision ?

**Answer** – No it is not designed to fit on the TV itself. It comes with a bracket which is intended to be screwed onto a flat wall with two screws and the amplifier slides down onto the bracket.

**Question** - Is there more than one type of RF Link Amplifier ?

**Answer** - Yes, there are two types -- Type 4052 which has a frequency range of 40 to 860 Mhz and a Type 4053 which has a frequency range of 87 to 860 Mhz for transmission and 5 to 65 Mhz for use as a return path.

**Question** - What is the "Return Path" ?

**Answer** - The return path is intended for Set-top boxes which have return communication with the distributor of programmes, for example Pay-per-view where a phone line is not used. For example Sky in the UK would not need a return path because it uses a phone line for dialogue back to the broadcaster.

**Question** - Why is the return path using frequencies 5 to 65 Mhz ?

**Answer** - This range of frequencies is part of the Band I frequencies which in most countries is no longer used for TV transmissions any more.

**Question** – Is there a cost difference between the two RF link Amplifier types

**Answer** – Yes there is, the Type 4052 without the return path in the UK retails for about £50 and the Type 4053 retails at about £70

**Question** - What happens if I am in a country which still uses the band 1 frequencies for TV transmission ?

**Answer** - Then you must use the Type 4052 which does NOT have a return path. If you do find you need to use this version then clearly any set top box which requires a return path will not work.

**Question** - Can I use the RF link amplifier if I am on a cable system like NTL ?

**Answer** - Yes PROVIDED you fit a Galvanic Isolator

**Question** - What is a Galvanic Isolator ?

**Answer** - To avoid ground loops or other electrical potential differences, the Galvanic Isolator MUST always be used when the RF link Amplifier is connected to a cable network

**Question** - Are there any other times when I may need to use a Galvanic Isolator ?

**Answer** - Yes if you are in a building feed by different mains supplies or a three phase supply where a different phase is used for different parts of the building which would feed TV's with aerials from the RF link amplifier.

**Question** - Can I purchase a Galvanic Isolator from B&O

**Answer** - Yes, it has a part number of 8039004

**Question** - Does the Galvanic Isolator reduced the signal ?

**Answer** - Yes a little, in fact the attenuation is about 0.5 dB

**Question** - What is a dB ?

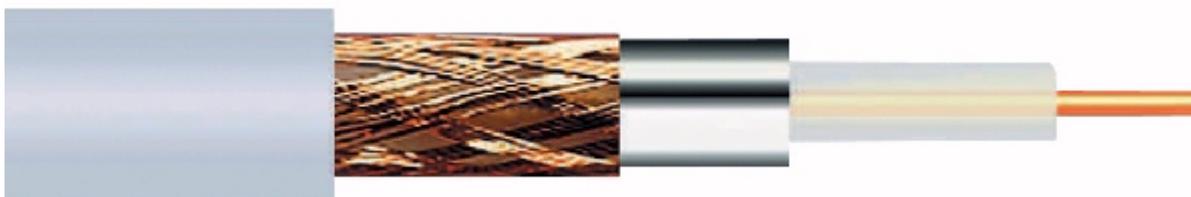
**Answer** - In the context of this FAQ it is a unit of measure of signal strength, usually the relation between a transmitted signal and a standard signal source. Every 3 dB = 50% of signal strength, therefore a 6 dB loss = a loss of 75% of total signal strength.

**Question** - What is the longest cable length which can be connected to each Input/Output ?

**Answer** - Using standard 75 ohm aerial cable the recommended maximum length is 30 metres, but if you good quality double screened cable you can get to 60 metres with only minor loss of signal. Tests have been carried out with lengths of CT100 and FT100 cable up to 100 metres with totally acceptable results.

**Question** – What does CT100 and FT100 cables look like and how is it constructed

**Answer** – Below is a breakdown picture of the FT100/CT100 Coax cable.



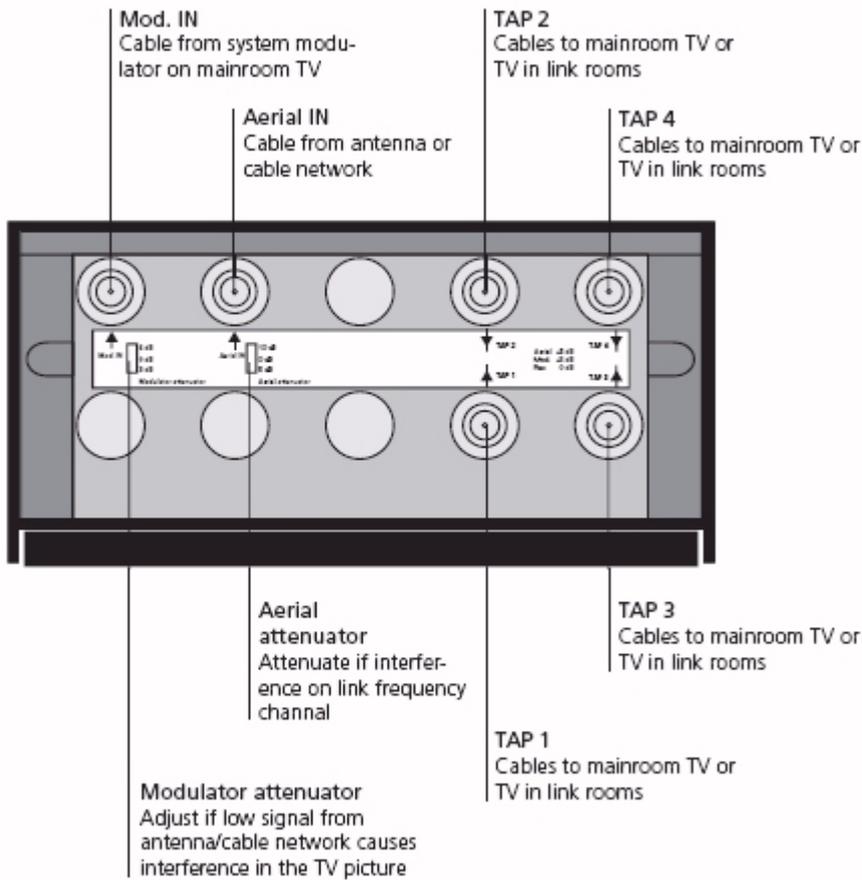
**Question** - I currently have a aerial amplifier, but when I use it I sometimes get interference particularly when my son is flying his model plane, will I have the same type of problems with the B&O RF link Amplifier ?

**Answer** - No because the signal entering the link Amplifier first goes through a high-pass filter which allows only frequencies higher than 27 Mhz to pass, so excluding interference from many things including walkie-talkies and radio controlled models.

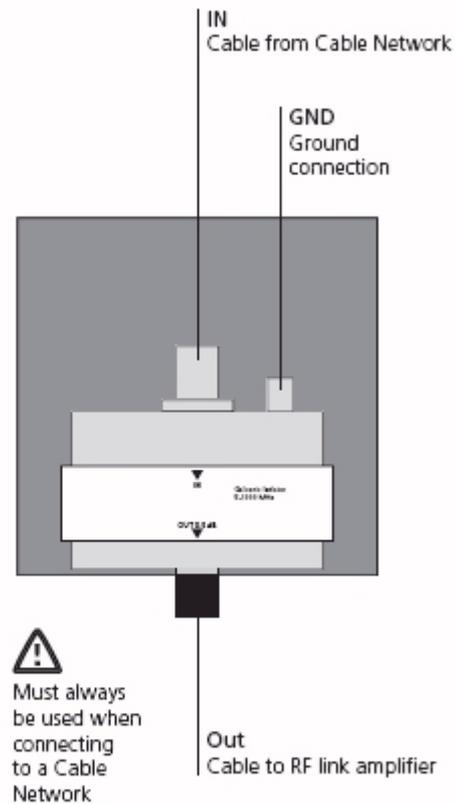
**Question** - Can you please describe the connections to the FR Link Amplifier

**Answer** - This is best done with a picture as below

**Amplifier**



**Galvanic Isolator**



**Question** - I am in the UK, which Type number should I purchase ?

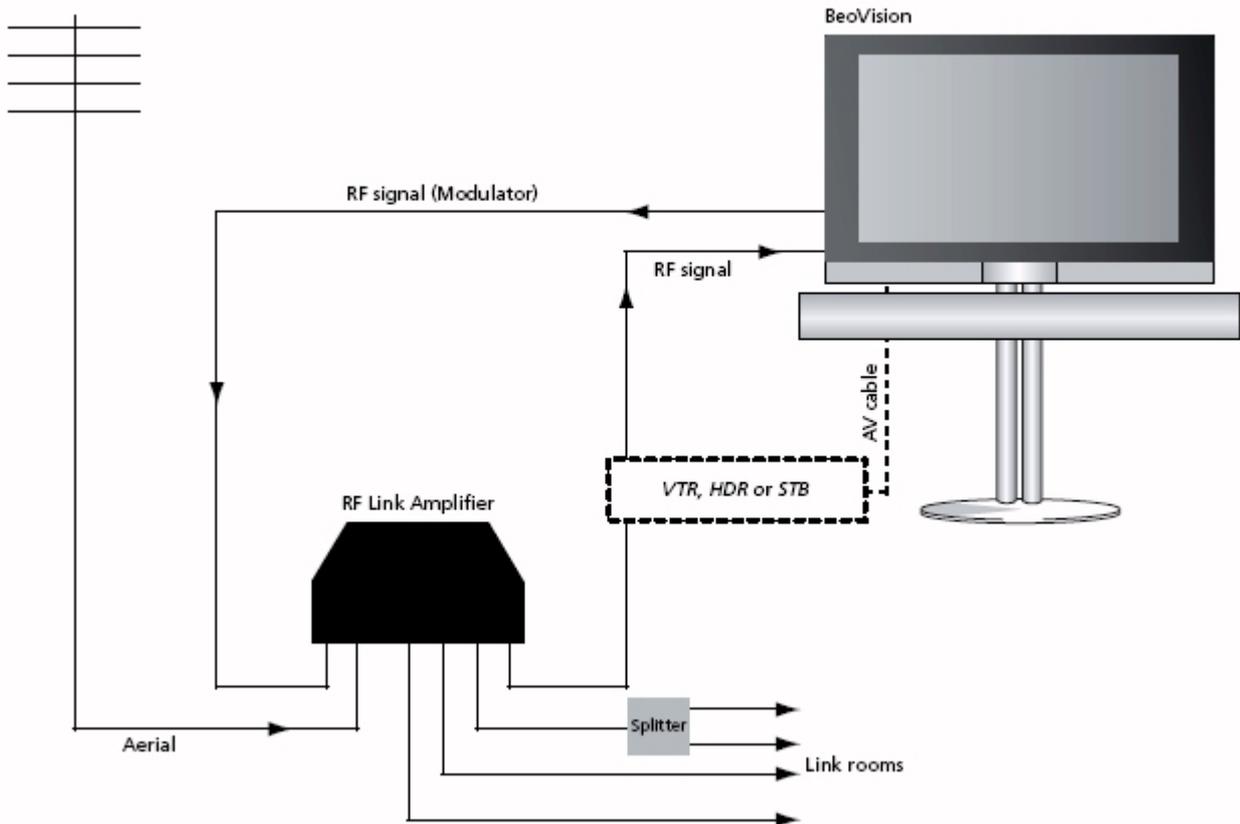
**Answer** - For the UK and almost all of Europe most dealers will supply a Type 4053 which has the return path even if you do not need the return path.

**Question** - I live in the US, so which should I use

**Answer** - That will depend where you live in the US and if you get your signal via an aerial or cable, if cable then use Type 4053, if your main source is via an aerial, then you would have to consult your local B&O dealer to determine if band 1 frequencies are used in your area.

**Question** - What does a typical link setup look like when using the B&O RF Link Amplifier

**Answer** - The picture below best describes a typical configuration



**Question** - I noticed that the RF Link Amplifier has only four (4) outputs, but I have 5 link TV's, how should I configure the system for 5 TV's

**Answer** - If the cable lengths are not too long, then you can just use a splitter as shown above, otherwise you can use a second RF amplifier adjusting the switches on the second amplifier to reduce the signal into the second unit.

**Question** – What are “F” connectors

**Answer** – “F” Connectors screw onto the stripped cable allowing the centre core to go directly into the socket without being fixed to a pin. It allows for better impedance matching and therefore less signal loss and a better signal into the link TV.

**Question** - What does a splitter look like ?

**Answer** - The picture below is of a high quality splitter

