

ASI Switching/Cellular Metropolitan systems



BMS has the solution for your needs

BMS has more than 20 years experience in microwave/RF design, which has been field-proven in many sports and news events worldwide over the last 10 years.

These products represent the high end solutions which are available on the market.

The BMS experienced engineers enable almost every technical realisable customer request and special features for special applications.



ASI Switch TS4020

“Due to ongoing updates, upgrades and ongoing development the image may differ from the product purchased”

Product family overview

TS4020
TS8010

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Properties

The field approved TS4020 adds to the award winning receiver solutions family offered by BMS. A simple to configure and highly effective switching unit for cellular reception. The TS4020 is reliable, rugged, and offers cable flexibility, facilitating the use of various types and lengths. The system also offers connectivity between single receive sites. Supporting coaxial cable, fibre, IP connection and digital microwave.

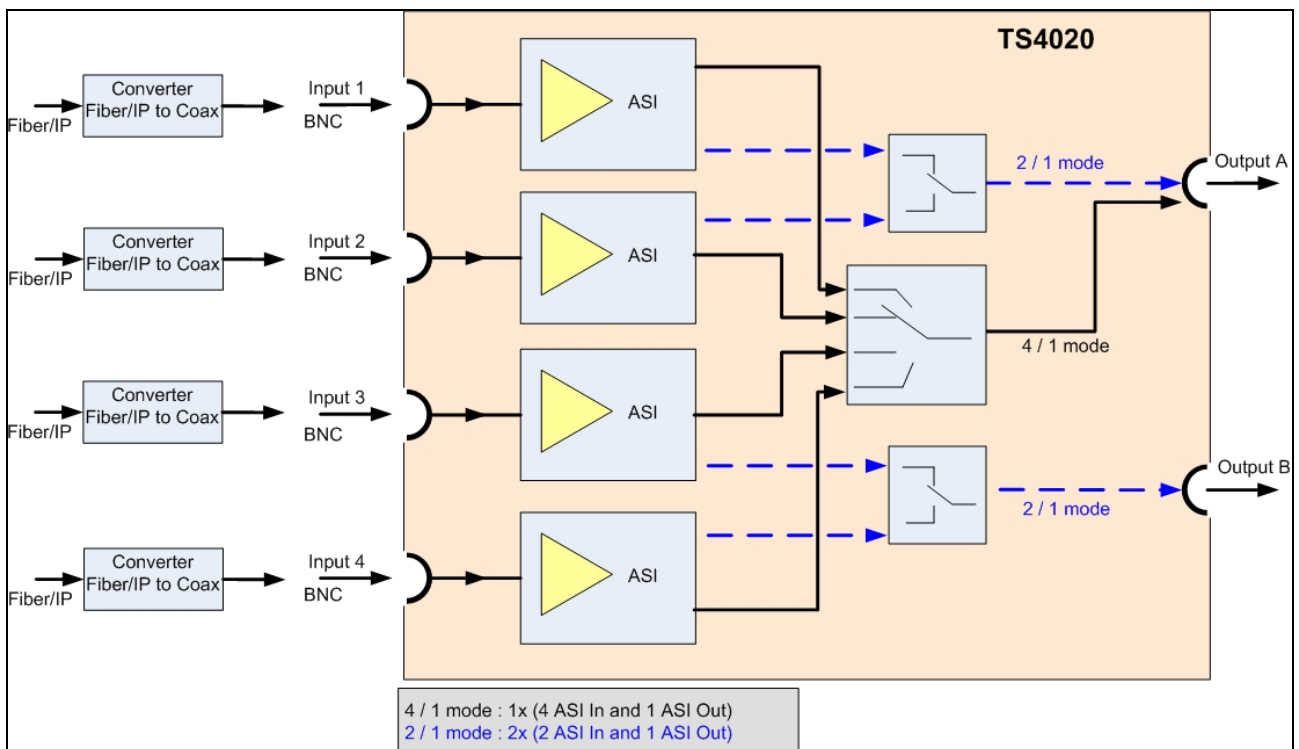
The "hands-free" switch-over allows city-wide digital ENG cellular broadcast networks to be built without a helicopter requirement. This reduces production cost enormously.

The unique TS4020 Transportstream switch provides the user a comprehensive yet flexible solution while retaining component interoperability. All from a company you know, can trust and can rely upon.

Key Features

- **Switchable Configuration**
 - 1 x (4 Input – 1 Output)
 - 2 x (2 Input – 1 Output)
- **Uninterruptible Change over (ASI Diversity)**
- **Easy Handling**
- **LED Signal Indication:**
 - **Green:** ASI Input O.K.
 - **Yellow:** ASI Input Selected
 - **Red:** No valid ASI Input

ASI Diversity block diagram

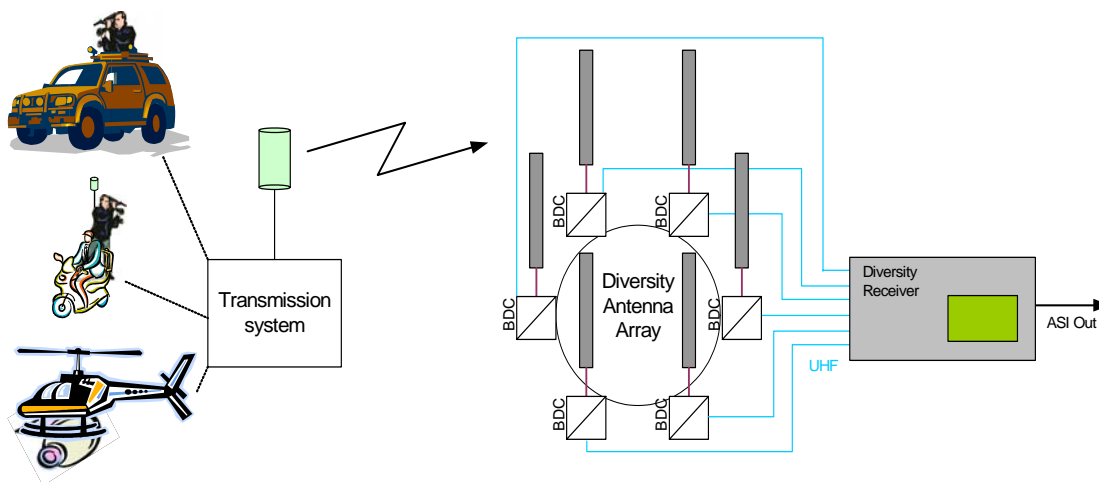


Applications for BMS diversity Receivers in combination with the TS4020

Wireless camera applications

Advanced diversity techniques can be used to significantly improve the performance of low power wireless camera systems that are often used in non-line of site applications and fast moving multi-path environments. Careful positioning of multiple antennas and the use of diversity has been proven to significantly improve the coverage of such systems. The characteristics of diversity can be used to provide a very effective fully automatic diversity system switching between a number of different antennas at a single receive site.

The diversity receiver will provide seamless selection of the best antenna, and in mobile environments eliminates the requirement to manually switch between antennas as the position of the mobile transmitter changes.



Area wide mobile reception with the TS4020

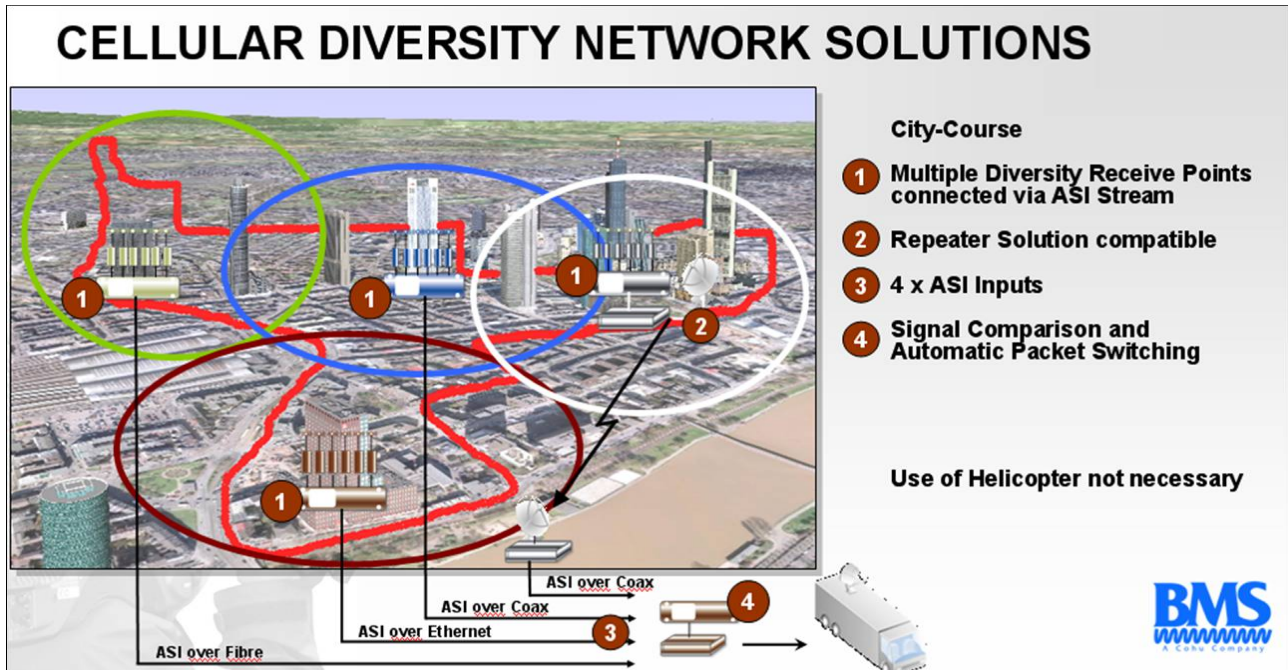
In order to be able to cover a conurbation (without the use of a Helicopter) and to be able to maintain good signal quality, a number of receive sites are required. After covering this area with receive sites the problem of choosing the site which has the best signal arises. Similar to the Diversity Reception process, where the best antenna signal is chosen, the choice of the best ASI stream is performed by the TS4020 in the same fashion

The TS4020 can receive up to 4 different ASI streams, quickly compare these streams and outputs the most suitable. Should the ASI stream deteriorate, there is an internal ASI switch, and without a glitch, the next best ASI signal is chosen.

Thus one has the possibility of inputting the various different types of ASI signal into the TS4020, the consequence of which is the ability to use the existing signal path without the need to create another.

(N.B. Because the TS4020 only uses BNC connectors coax must be used for the fibre and IP signals).

As can be seen in the diagram below, by using different receive site a very large area can be covered. By feeding the ASI signal from the different location into a central point, the TS4020 can automatically select the best ASI signal. With this method the end user has the confidence that his TS4020 delivered signal is the most suitable for his end user.



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Technical Characteristics



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Input ASI-Transportstream up to 270MBit/s
4x BNC(f), 75Ω
Standard: EN 50083-9

Output ASI-Transportstream up to 270MBit/s
2x BNC(f), 75Ω
Standard: EN 50083-9

Possible Configuration 1x (4 ASI In – 1 ASI Out)
2x (2 ASI In – 1 ASI Out)

Indication Green: ASI Input OK
Yellow: ASI input selected
Red: No valid ASI Input

Power supply 11 to 17.5V DC

Power Consumption 500 mA

Operating Temperature 0 to 40°C

Humidity 5 to 95%

Dimensions 435 x 275 x 44 mm
(WxDxH)

Weight 4.3 kg