



**BONN HUNGARY
ELECTRONICS**

**MICROWAVE FENCE
X-BAND**

**BUTR
Family
NDS # 970**

an ISO 9001 Certified Company



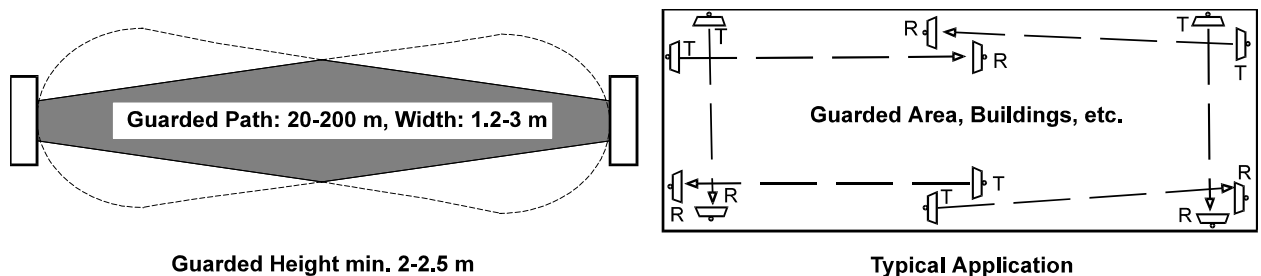
- **WIRELESS CONNECTION**
- **FORMS AN INVISIBLE FENCE**
- **EASILY INSTALLABLE.**
- **LOW WEIGHT, LOW POWER CONSUMPTION, HIGH RELIABILITY.**
- **HARSH ENVIRONMENTAL CONDITIONS (-30 ... + 60 °C).**
- **MEETS THE CEPT T/R 60-01 RECOMMENDATION.**
- **COMPATIBLE WITH TRADITIONAL ALARM SYSTEMS.**

The Outdoor Perimeter Protection Microwave Fence is a modern, full solid-state alarm equipment. With this unit, any illegal intrusion can be detected even in harsh weather condition. The area to be protected can be a smaller or a larger object.

SHORT FUNCTIONAL DESCRIPTION:

The alarm system is installed at the outer perimeter of the object to be protected. The guarded path can be divided into smaller sections. One section consists of one transmitter and one receiver. In operation the alarm system erects an invisible microwave fence around the object to be protected.

The guarded path of one pair of transmitter and receiver can be seen in the figure below, together with a typical installation arrangement:



In case of an illegal intrusion, the intruder creates a certain change in the electromagnetic field of the fence. Sensitive circuits detect the change in the electromagnetic field and send out an alarm signal. Since the microwave radiation is invisible, the intruder is unable to sense that the alarm process has been initialized. This feature can be advantageous in certain applications, where recording with a hidden camera is required.

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The equipment is constructed with the most modern microwave circuits and semiconductors. The reliability is even further enhanced by the use of highly integrated electronic circuits. Instead of the traditional horn or parabolic dish antenna, a flat microstrip patch antenna is used. The sharp radiation pattern lends high sensitivity and noise immunity to the system. The microwave circuits are integrated on the rear of the antenna, eliminating long and unreliable interconnections. The whole unit is housed in a small, water tight UV resist plastic box. The BMF-0955-B microwave fence has been designed to meet the **CEPT T/R 60-01** recommendations and manufactured for long and trouble free service.

MAIN TECHNICAL PARAMETERS :

Guarded Path	20 - 200 m
Guarded Height	2 - 2.5 m
Average Guarded Cross Section	1.2 - 3 m
Nominal Operating Frequency *	9.55 GHz
Frequency Stability *	± 500 ppm
EIRP *	140 - 500 mW
Harmonics *	- 25 dBc
Spurious *	< - 90 dBc
Modulation	Pulse (at least 4 channels)
Operation	Continuous
Transmitter DC supply	+12 V / 40 mA
Receiver DC supply	+12 V / 100 mA
RX/TX Weight	< 1 - 1 kg
RX/TX Mechanical Dimensions	222 x 146 x 55 mm
Operating Temperature Range	- 30 ... + 60 °C
Applicable	Fixed installed or portable

* According to the CEPT T/R 60-01 recommendation

OUTLINE DIMENSIONS (mm):

