

The INTAS-S2 passive antenna combiner allow two transceivers to be connected to a single antenna. Reducing the number of antennas on a platform reduces the visual impact and can improve the radiation pattern due to the reduced effect of co-site interference.

Successful integration of multiple antennas onto ground and shipboard platforms poses many challenges. Platform features impact antenna performance by blocking, reflecting or re-radiating energy, and co-site interference can impair the effectiveness of multi-antenna installations.



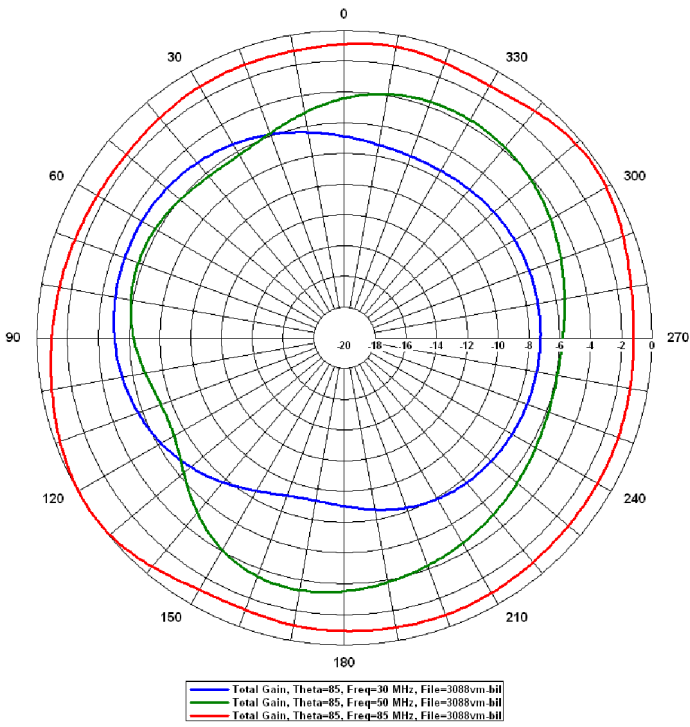
The ideal solution would be to reduce the number of antennas to one per frequency band. This solution is not feasible as proper functioning of the individual radios could then no longer be ensured under all conceivable operating conditions. The consequence would be a mutual frequency band “clog up” of the individual sets. To overcome this problem Comrod has developed the INTAS-S2 intelligent antenna system which has been designed to permit optimum use of a single antenna. As a result of this, co-site interference is reduced and the transmission quality of the system is maintained both through an increase average range and through appropriate communications procedures.

An emergency loop-through is provided for connecting any radio directly to the antenna.

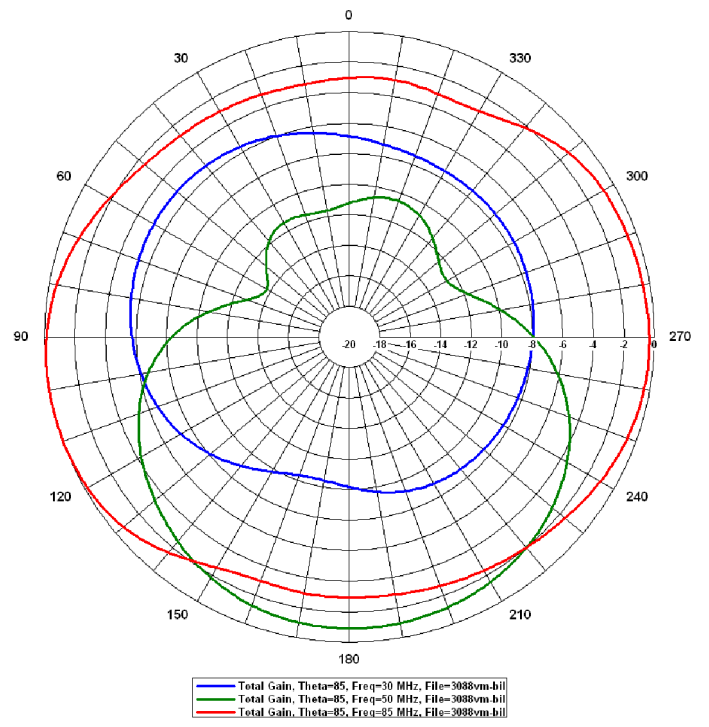
Specification

Frequency Range	20-200 MHz
Channel Spacing	Any spacing (equipment defined)
Radio bit rate	Any rate (equipment defined)
Transmitting power	2 x 100W maximum
Insertion loss	30-90 MHz < 3.5dB 20-200 MHz < 3.8dB Less than 0.1dB through emergency loop
Isolation	30-90 MHz > 25dB 20-200 MHz > 20dB
Impedance	Inputs: 50 Ohm Outputs: 50 Ohm
Interoperability	Operation with radio system within a frequency range of 20-200 MHz.
EMC	Per MIL STD 462
NEMP	Per AEP4/STANAG 4145
Environmental	Per MIL STD810/DIN 58390
Operating temperature range:	-35 C... +63 C Other temperatures ranges are available.
Dimensions	Approx. 220 x 200 x 80 mm
Weight	Approx 2 kg.
Connectors	BNC female to antenna, TNC female towards TRX— or customer specified

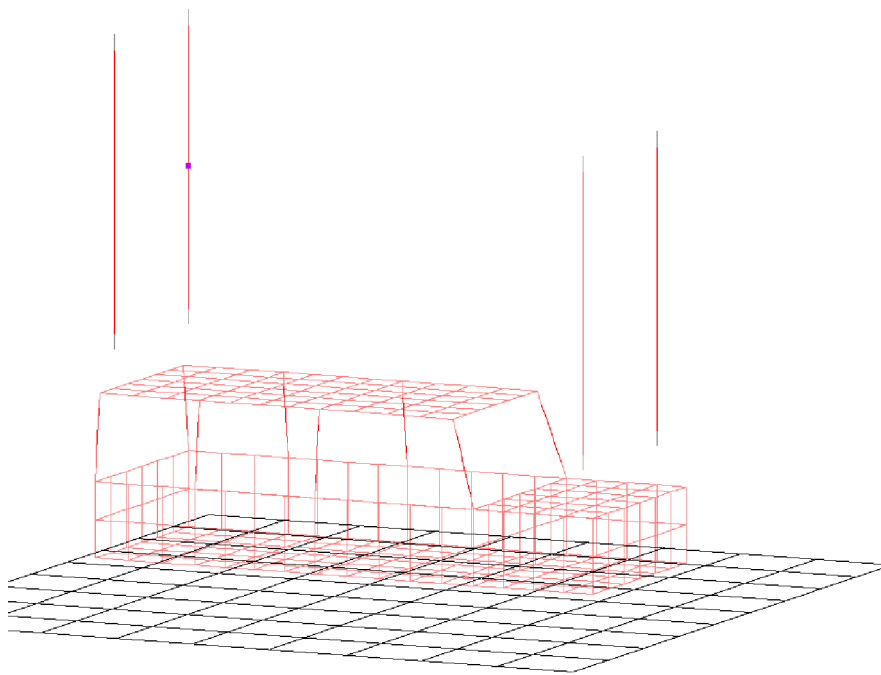
The INTAS system reduces the number of antennas on the vehicle, this has a beneficial effect on the radiation pattern as can be seen below:



Azimuth radiation pattern with INTAS-S2



Azimuth radiation pattern with two separate antennas



NEC model of vehicle