

Description of project

The RadioFrame System (RFS) is a highly flexible and modular digital communications system that provides wireless access, transport and applications for indoor wireless device users. This initial system architecture is intended for use worldwide and provides for all cellular and PCS standards currently in use worldwide including TDMA, CDMA, UMTS, WI-MAX, iDEN and GSM. The bands that are supported are:

Band	Frequencies	output power	Ant. Gain	EIRP
SMR (iDEN)	851 – 869 MHz	+30 dBm	6 dBi	6.3 Watts
E-GSM 900 Low Band	902-928 MHz	+20 dBm	0 dBi	.1 Watt
NA-GSM 850 Low Band	869 – 894 MHz	+20 dBm	0 dBi	.1 Watt
DCS 1800 High Band	1805 - 1880 MHz	+32 dBm	8 dBi	10 Watts
PCS 1900	1930 - 1990 MHz	+20 dBm	0 dBi	.1 Watt
UMTS	1920 – 1980 MHz	+20 dBm	0 dBi	.1 Watt
WI-MAX	2630 – 2645 MHz	+20 dBm	0 dBi	.1 Watt

Experiments would entail modifying existing iDEN products for higher power operation and the introduction of new technologies. Other experiments are also needed to ensure GSM products are in compliance with European standards in the E-GSM 900, GSM 1800, and GSM 1900 in accordance with European Telecommunication Standards. Testing would also include proof of performance to ensure that all supported standards would be compatible without degradation of an already approved system. Testing shall be performed in accordance with the following standards:

47 CFR 2, 15, 22, 24 and 90
ETSI EN 301 087
ETSI EN 301 908