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Memorandum

To: BABT
cc:
Prepared by: Jonathan Jones
Subject: **9555N Operating Description**

1 Introduction

This document describes the operation of the Iridium 9555N for the purpose of regulatory approvals.

2 Overview

The 9555N is a satellite phone for operation with the Iridium satellite network. The 9555N enables voice and data communication via the Iridium network. For data communications the 9555N is connected to a PC via a USB cable, which is connected to the 9555N. A full description of the 9555N functionality is given in the user manual **Error! Reference source not found.**

3 Transmitter characteristics

The transmitter characteristics of the 9555N are given in Table 1.

Parameter	Value	Comments
Transmit band	1616 – 1626MHz	
Transmitter channel spacing	41.667kHz	
Bottom transmit channel centre frequency	1616.020833MHz	
Top transmit channel centre frequency	1625.979167MHz	
Modulation type	DE-QPSK, 40% RRC filtering	Traffic channel
Modulation rate	25ksps	Traffic channel

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Parameter	Value	Comments
Transmit power (Max)	38.2dBm \pm 0.5dB ¹	Transmit power at the input to the integral antenna. (37.0dBm \pm 0.5dB at the external TNC antenna connector on the docking cradle ²)
Transmit power (Min)	30.2dBm \pm 0.5dB	Transmit power at the input to the integral antenna. (29.0dBm \pm 0.5dB at the external TNC antenna connector on the docking cradle)
Transmit power level steps	1dB, 8 steps	Power level 0: 38.2dBm, Power level 8: 30.2dBm
Antenna gain	3.0dBi	
Duplex type	TDMA	
Transmitter duty cycle	9.2%	One 8.28ms transmit slot in a 90ms frame.

Table 1 - 9555N Transmitter Parameters (from [2], [3], [4])

4 Referenced documents

Reference no. Document reference	Subject	Version and/or date	Issued by
[1] P1638-UDOC-003	Iridium 9555N User Guide 9555 Manual EN with N Updates- April 2018_final[1]_engineer updates only....pdf	April 2018 H2UG1801 (V0.1)	Iridium
[2] P1638-RS-005	9555N Transceiver Requirements Specification	V0.8	CC
[3] P0947-S-012	9555N Transceiver Manufacturing Test Specification	V0.8	CC
[4] P1638-WM-126	9555N handset SAR test pre-check results	V0.1	CC

Table 2 - Referenced documents

¹ See sections 8.8 and 8.9 in the 9555N Manufacturing Test Specification [3]

² Confirmed in results in [4].