

EXHIBIT 1

4.

| Frequency (state whether kHz or MHz) (A) | POWER | | | EMISSION (E) | MODULATING SIGNAL (F) | NECESSARY BANDWIDTH (kHz) (G) |
|---|-------|----------|------|--|--|--------------------------------------|
| | (B) | (C) | (D) | | | |
| 4415 MHz | 2 W | 55.1 dBm | Peak | -60 dB, 400 KHz for CM/TM - 40 MHz for TM/TV | (1) -58.6 Kbps (2) TM/CM 58.6 KHz (3) TM/CM 119 KHz (4) 8.5 μs 17μs | -3 dB |
| | | 323.6 W | | | | |
| 4755 MHz | 10 W | 49.7 dBm | Peak | -20 dB, 200 KHz for CM/TM - 30 MHz for TM/TV | (1) -58.6 Kbps (2) TM/CM 58.6 KHz (3) TM/CM 119 KHz (4) 8.5 μs 17μs | -3 dB |
| | | 93.3 W | | | | |
| 4457 MHz | 2 W | 55.1 dBm | Peak | -60 dB, 400 KHz for CM/TM - 40 MHz for TM/TV | (1) -58.6 Kbps (2) TM/CM 58.6 KHz (3) TM/CM 119 KHz (4) 8.5 μs 17μs | -3 dB |
| | | 323.6 | | | | |
| 4905 MHz | 10 W | 49.7 dBm | Peak | -20 dB, 200 KHz for CM/TM - 30 MHz for TM/TV | (1) -58.6 Kbps (2) TM/CM 58.6 KHz (3) TM/CM 119 KHz (4) 8.5 μs 17μs | -3 dB |
| | | 93.3 | | | | |
| 4436 MHz | 2 W | 55.1 dBm | Peak | -60 dB, 400 KHz for CM/TM - 40 MHz for TM/TV | (1) -58.6 Kbps (2) TM/CM 58.6 KHz (3) TM/CM 119 KHz (4) 8.5 μs 17μs | -3 dB |
| | | 323.6 | | | | |
| 4830 MHz | 10 W | 49.7 dBm | Peak | -20 dB, 200 KHz for CM/TM - 30 MHz for TM/TV | (1) -58.6 Kbps (2) TM/CM 58.6 KHz (3) TM/CM 119 KHz (4) 8.5 μs 17μs | -3 dB |
| | | 93.3 | | | | |

(G)

FM modulator at 0.446 mod. Ratio - TV

FSK - for TM/CM, 15 KHz deviation from subcarrier

EXHIBIT 2

10.

- A) This frequency is used for uplinking telemetry and command data to an unmanned air vehicle from the backup ground station. It is generally intended for short-range communications although capable of a 50km or more communications distance.

The theory of operation goes as follows: The input data is modulated onto a carrier by the FM/FSK Modulator generating the IF signal. The IF signal is upconverted in mixer with a transmit synthesizer signal which is then amplified in the final stage to a 10w level. The modulator, RF upconverter, and power amplifier are packaged together in a single unit with a heat sink on one face.

- B) The objectives are to maintain a continuous data link to the air vehicle at all times and hence continuous control of the vehicle.
- C) The technology used is off-the shelf equipment. The advancement sought are in quality, continuity and consistency of the telemetry.

CC: DOROTHY INGRAM

Subject: Data Link Frequencies and UHF Interfaces
Ref: your e_mail

1. Primary Frequency Plan: see Table 1 below. We are aware that in some cases the authorities may ask for a DD1494 form. Therefore, I attached as Appendix A draft with data for the DD1494. It has data prepared for the US Govnt as part of the Hunter program. ■

Table 1. C-Band Preset Channels

| Ch. No. | Uplink [Mhz] | Downlink [Mhz] |
|---------|--------------|----------------|
| 1. | 4415 | 4755 |
| 2. | 4422 | 4780 |
| 3. | 4429 | 4805 |
| 4. | 4438 | 4830 |
| 5. | 4443 | 4855 |
| 6. | 4450 | 4880 |
| 7. | 4457 | 4905 |

EXHIBIT 3