

## 6. Circuit Diagrams and Parts List

This section contains circuit schematics and printed circuit board details.

### 6.1 List of Illustrations

| Diagram Reference | Sheet Code | Description                   | Comment   |
|-------------------|------------|-------------------------------|---|
| Figure 6.1        | 1          | SRM9000 Block Diagram         | Illustration showing all sub-section interconnections |
| Figure 6.2        | 2          | DSP and FGPA Schematic        |   |
| Figure 6.3        | 3          | Power Supply Schematic        |   |
| Figure 6.4E0      | 4          | Receiver Circuit Schematic    | E0 Band (66 - 88MHz)                                  |
| Figure 6.4AC      | 4          | Receiver Circuit Schematic    | AC Band (136 - 174MHz)                                |
| Figure 6.4TK      | 4          | Receiver Circuit Schematic    | TK Band (400-450MHz)                                  |
| Figure 6.4UW      | 4          | Receiver Circuit Schematic    | UW Band (440- 500MHz)                                 |
| Figure 6.5E0      | 5          | Transmitter Circuit Schematic | E0 Band (66 - 88MHz)                                  |
| Figure 6.5AC      | 5          | Transmitter Circuit Schematic | AC Band (136 - 174MHz)                                |
| Figure 6.5TK      | 5          | Transmitter Circuit Schematic | TK Band (400-450MHz)                                  |
| Figure 6.5UW      | 5          | Transmitter Circuit Schematic | UW Band (440- 500MHz)                                 |
| Figure 6.6E0      | 6          | Synthesiser - VCO Schematic   | E0 Band (66 - 88MHz)                                  |
| Figure 6.6AC      | 6          | Synthesiser - VCO Schematic   | AC Band (136 - 174MHz)                                |
| Figure 6.6TK      | 6          | Synthesiser - VCO Schematic   | TK Band (400-450MHz)                                  |
| Figure 6.6UW      | 6          | Synthesiser - VCO Schematic   | UW Band (440- 500MHz)                                 |
| Figure 6.7E0      | 7          | Synthesiser - PLL Schematic   | E0 Band (66 - 88MHz)                                  |
| Figure 6.7AC      | 7          | Synthesiser - PLL Schematic   | AC Band (136 - 174MHz)                                |
| Figure 6.7TK      | 7          | Synthesiser - PLL Schematic   | TK Band (400-450MHz)                                  |
| Figure 6.7UW      | 7          | Synthesiser - PLL Schematic   | UW Band (440- 500MHz)                                 |
| Figure 6.8        | 8          | A/D Converter Schematic       |   |
| Figure 6.9        | 9          | D/A Multiplexer Schematic     |   |
| Figure 6.10       | 10         | I/O Connections Schematic     |   |
| Figure 6.11       | -          | SRM9000 PCB layout, Top       | 1 of 2  |
| Figure 6.12       | -          | SRM9000 PCB layout, Top       | 2 of 2  |
| Figure 6.13       | -          | SRM9000 PCB layout, Bottom    | 1 of 2  |
| Figure 6.14       |            | SRM9000 PCB layout, Bottom    | 2 of 2  |