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PURPOSE OF THIS PROGRAM

This program is for an IC22S digital display and channel up/down with Scan. The 4-digit display is driven by a MC14499 serial input to 7-segment driver.

Note. There is no further room in the micro. It is full of code.

The display data for each channel is in the form of a table contained in a list, starting at 144.400MHz The software keeps track of the 8 bit data required for each channel. Since the starting point is known at power up, the software decrements or increments in sync with the UP / DOWN switches. This number is then used to extract the display data from the table and send them to the display during the timer interrupt.

Scanning is also provided.

1) NORMAL SCAN MODE:-

If the Scan switch is pressed, then released, the radio will scan all channels from SCAN_LOWER to SCAN_UPPER.

It will start from the current channel.

When a busy channel is found, the program will stop on that channel for a short time if still busy, then go onto next channel. If the signal goes a way it will wait for about a second (dropout delay), then start to scan again.

Whilst stopped on a busy channel, if the UP switch is pressed, then the channel is deleted from the scan. Up to 6 channels may be deleted. This is the NUISANCE list.

If the DOWN switch is pressed, then the NUISANCE CH LIST IS CLEARED

2) SCANLIST MODE:-

If DOWN switch pressed at start up for > 5 secs, then can input user prog scan list. Press up/down to select a channel for the list, then press SCAN to add it to the list. Max is 12 channels in list. As each is added, the display shows the scanlist entry number, starting at 1 and incrementing to 12.

If SCAN switch is held down for > 5 secs, OR it is the last entry then scanlist entry is ended and program starts normally.

Pressing SCAN switch enters the scanlist scan mode.

Nuisance channel delete will also work in this mode.

This mode also gives extended band range, down to 144.425MHz Upper limit is always 147.975MHz.



