## Frequency Synthesizer

## NEW

S510M804MD

## Features

A frequency synthesizer equipped with a high-stability TCXO. Best suited for base stations requiring low power consumption and excellent starting characteristics.

- Low-phase noise characteristic: -50 dBc max. as the integration value from 10 Hz to 1 MHz
- Wide frequency range: 510.292857 to 804.292857 MHz
- Highly stable signal source: $\pm 2.0$ ppm max.
- Frequency setting is possible with a rotary switch (6 MHz step).
- A product with characteristics best suited for digital terrestrial broadcasting (ISDB-T) mini satellite stations.


RoHS Compliant
Directive 2002/95/EC

## Standard Specifications

| Item <br> Model | S510M804MD |
| :---: | :---: |
| Frequency Range | 510.292857 to 804.292857 MHz (frequency variable width: 294 MHz ) |
| Frequency setting resolution | 6 MHz step (changeable with a rotary switch) |
| Frequency stability | $\pm 2.0 \times 10^{-6}$ |
| Aging characteristic | $\pm 1.0 \times 10^{-6} / \mathrm{year}$ |
| Phase noise characteristic | -50 dBc max. (integration value of 10 Hz to 1 MHz ) -57 dBc max. (integration value of 100 Hz to 1 MHz ) |
| Output power | $0 \mathrm{dBm} \pm 3 \mathrm{~dB}$ |
| Spurious characteristic | Harmonic: -20 dBc max. Non-harmonic: -65 dBc max. |
| External signal input frequency | 10 MHz |
| Power supply voltage (consumption current) | +12 VDC (0.3 A max.) |
| Operating temperature range | -20 to $+60^{\circ} \mathrm{C}$ |
| Dimensions | 90 mm (width) $\times 21 \mathrm{~mm}$ (height) $\times 110 \mathrm{~mm}$ (depth) |
| RF interface | SMA-F connector |
| Control/power supply interface | DF11-12DP-2DS (manufactured by HIROSE ELECTRIC CO., LTD.) |

The above specifications are standard for this NDK product. Custom-made specifications such as frequency stability and dimensions are also available. Please contact NDK sales with your enquiries.

## Dimensions



## Characteristics



Pin configuration (DF11-12DP-2DS)

* IC : Inter-connection

| PAD | Connection |
| :--- | :--- |
| $\# 1$ | GND |
| $\# 2$ | PLL RESET INPUT |
| $\# 3$ | REF ALARM OUTPUT |
| $\# 4$ | IC |
| $\# 5$ | IC |
| $\# 6$ | IC |
| $\# 7$ | UNLOCK ALARM OUTPUT |
| $\# 8$ | RF LEVEL ALARM OUTPUT |
| $\# 9$ | IC |
| $\# 10$ | $+12 ~ V$ |
| $\# 11$ | GND |

