To realize low-noise, wide-tuning-range, small-area VCO for single-chip multi-band transceiver.

Target frequency tuning range: 800MHz - 6GHz

Architecture: Core VCO + tuning-range extender
Use differential VCO rather than QVCO.

The former has superior phase noise characteristics and smaller area.
Use DSBM rather than SSBM.

DSBM is composed of smaller number of components.

Frequency tuning range of 0.98 - 6.64 GHz is realized.

Low-phase-noise small-area VCO with the widest frequency tuning range of 0.98 - 6.64 GHz is realized.