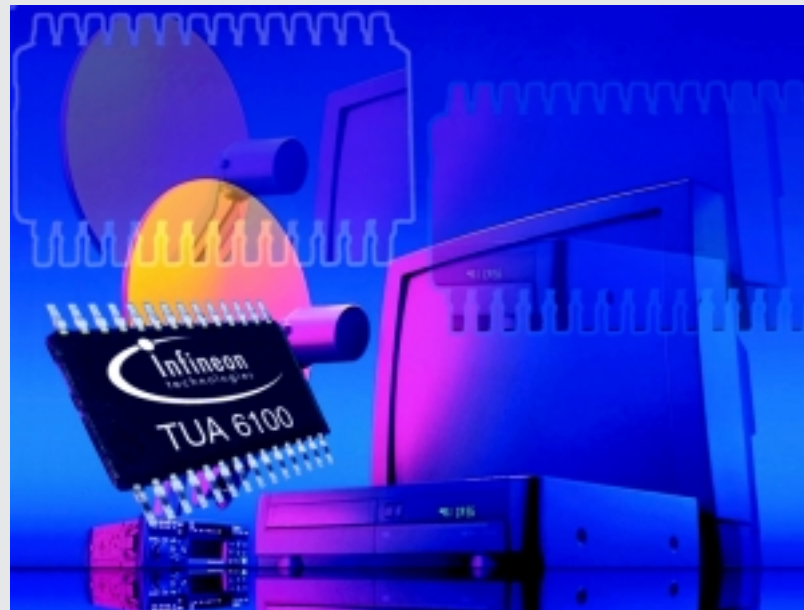


The TUA 6100 direct down conversion tuner IC in BICMOS technology combines bipolar analog functions with a CMOS-PLL on one chip. This integration reduces external discrete components (SAW filter) and provides the potential to reduce the cost. Our TSSOP-28 package saves PCB-board space. The tuner IC is suitable for multimedia applications like DVB/DSS systems (set-top boxes, PC card receiver) and new applications, such as digital SAT TV sets and digital VCRs.

Next generation DCR IC in development - goes for higher integration and smaller package (VQFN).



#### Potential Application

- Digital set-top box (DVB, DSS)
- VCR digital (satellite-ready)
- TV (satellite-ready)
- PC card receiver

#### Features

- Low impedance gain controlled RF input
- Dual matched double balanced mixer
- Digital generation of 0°/90° LO signal
- Direct down conversion from 1. IF (LNB output) to baseband
- IF filter not necessary
- I/O for external basebandfilter
- CMOS PLL-Synthesizer
- Active loopfilter
- 3 high current switch outputs
- Low noise reference voltage
- 3-wire-Bus/I<sup>2</sup>C-Bus
- P-TSSOP-28 package
- Buffered Xtal output

#### Price projection

- Standard price list
- For Key and Focus accounts or high volumes you may contact your regional Infineon sales partner

#### Development and Support Tools

- NIM Module for Satellite Frontend
- Evaluation Board TUA 6100
- PLL Programming Kit for Windows (16 Bit)

Features	Benefits
Direct down conversion from 1. IF to baseband	Fully integrated single-chip frontend
CMOS PLL-Synthesizer	On board low phase noise PLL solution
IF filter not necessary	Lower BOM-SAW filter eliminated
3-wire-Bus / I <sup>2</sup> C-Bus	Two bus systems available
P-TSSOP-28 package	Small package - space saving

#### Packing

Type	Ordering Code	Package	Availability
TUA 6100	Q67037-A1034P	P-TSSOP-28	MP Q3/2000 for key accounts ES Q2/2000
Infineon NIM Module	Q6703-A1151		Q3/2000
Infineon/STM NIM Module	Q6703-A1152		Q3/2000

MP = Mass Production    ES = Engineering Sample

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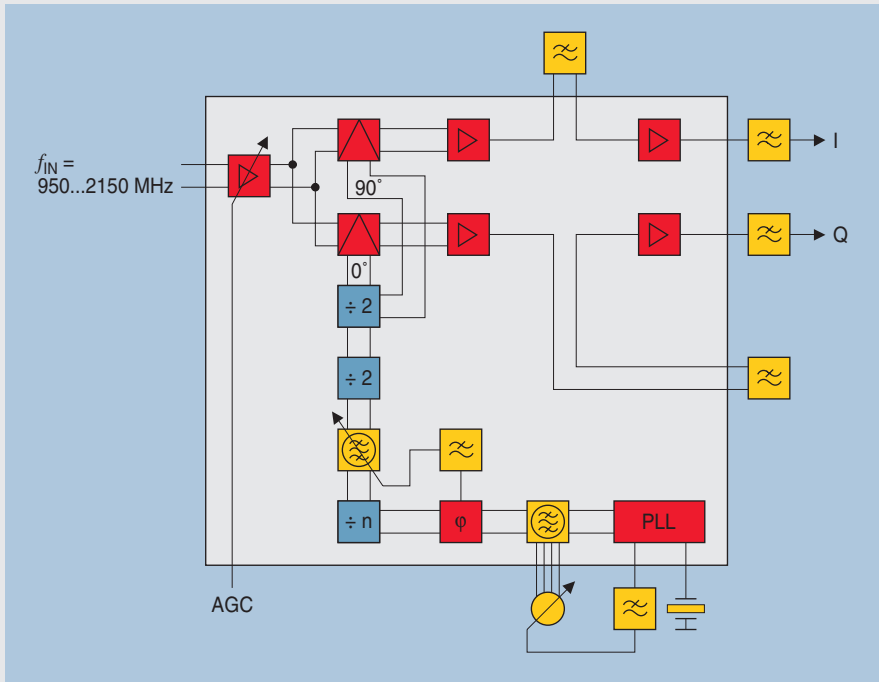
## Direct Conversion Tuner IC for Digital Satellite Reception



N e v e r   s t o p   t h i n k i n g .

# TUA 6100

## Block Diagram

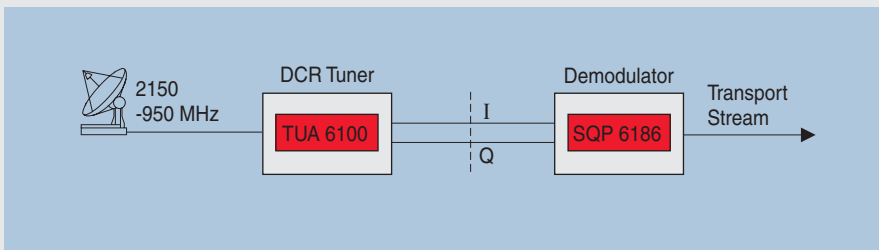


Documentation	Date of Issue/Version
Specification	05/00
Application/Measurement	05/00

## Infineon Strength

Complete DCR solution with fitting feature size

- TUA 6100: PLL on chip
- SQP 6186: DISEqC 2.x, SCPC/MCPC range 1...45 MSymb/s,
- Cost savings due to unnecessary external filtering
- Interface to other demodulator tested - NIM module available



## TUA 6100

### Application Example

How to reach us:  
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### Information

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**warnings**  
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