**package** FIGURE9

**public**

**system** ProcessorSystem

**end** ProcessorSystem;

**system** **implementation** ProcessorSystem.impl

**subcomponents**

proc1: **processor** leon1;

proc2: **processor** leon2;

t1: **thread** Thread\_T1;

t2: **thread** Thread\_T2;

tx: **thread** Thread\_Tx;

dev1: **device** Device1;

dev2: **device** Device2;

Lebus: **bus** SystemBus;

**connections**

C1: **bus** **access** Lebus -> proc1.bus\_access;

C2: **bus** **access** Lebus -> proc2.bus\_access;

C3: **bus** **access** Lebus -> dev1.bus\_access;

C4: **bus** **access** Lebus -> dev2.bus\_access;

C5: **port** dev1.data\_port -> t1.data\_in;

C6: **port** t1.data\_out -> t2.data\_in;

C7: **port** t2.data\_out -> tx.data\_in;

C8: **port** tx.data\_out -> dev2.data\_in;

**end** ProcessorSystem.impl;

**processor** leon1

**features**

bus\_access: **requires** **bus** **access** SystemBus;

**end** leon1;

**processor** **implementation** leon1.impl

**end** leon1.impl;

**processor** leon2

**features**

bus\_access: **requires** **bus** **access** SystemBus;

**end** leon2;

**processor** **implementation** leon2.impl

**end** leon2.impl;

**bus** SystemBus

**features**

**access**: **provides** **bus** **access**;

**end** SystemBus;

**thread** Thread\_T1

**features**

data\_in: **in** **data** **port**;

data\_out: **out** **data** **port**;

**end** Thread\_T1;

**thread** **implementation** Thread\_T1.impl

**end** Thread\_T1.impl;

**thread** Thread\_T2

**features**

data\_in: **in** **data** **port**;

data\_out: **out** **data** **port**;

**end** Thread\_T2;

**thread** **implementation** Thread\_T2.impl

**end** Thread\_T2.impl;

**thread** Thread\_Tx

**features**

data\_in: **in** **data** **port**;

data\_out: **out** **data** **port**;

**end** Thread\_Tx;

**thread** **implementation** Thread\_Tx.impl

**end** Thread\_Tx.impl;

**device** Device1

**features**

data\_port: **out** **data** **port**;

**end** Device1;

**device** **implementation** Device1.impl

**end** Device1.impl;

**device** Device2

**features**

data\_in: **in** **data** **port**;

**end** Device2;

**device** **implementation** Device2.impl

**end** Device2.impl;

**end** FIGURE9;