

# ISDN U<sub>KO</sub>-INTERFACE TRANSFORMER/MODULE

- The U<sub>KO</sub>-interface is used to connect the ISDN Public Exchange and Network Termination(NT'S).
- The U<sub>KO</sub>-interface transmission code 4B3T and 2B1Q when consumer use the ISDN chips of different manufacturers on the personal application.

## ISDN-IC/U<sub>KO</sub>-Interface Transformer Selection

chip manufacturer	chip designation	flat design	upright design	SMT design
Infineon(Siemens)	PEB2090	UT21158 UT21140	UT21579 UT21540	UT21158-TS UT21140-TS
AMD	AM20902	UT21158 UT21140	UT21579 UT21540	UT21158-TS UT21140-TS
Mietec	MTC2071	UT21139 UT21140 UT21158	UT21524 UT21540 UT21579	UT21139-TS UT21140-TS UT21158-TS

## ISDN-IC/U<sub>KO</sub>-Interface Module Selection

Chip manufacturer	chip designation	through hole	SMT design
Infineon(Siemens)	PEB2090	UT21619 UT21623 UT21625	UT21619-TS UT21623-TS UT21625-TS
AMD	AM20902	UT21619 UT21623 UT21625	UT21619-TS UT21623-TS UT21625-TS
Mietec	MTC2071	UT21619 UT21623 UT21625	UT21619-TS UT21623-TS UT21625-TS

# ISDN $U_{KO}$ -INTERFACE TRANSFORMER/MODULE<sup>\*)</sup>

electrical specifications @ 25°C:

## Transformer

UMEC Model No.	n ±2%	I <sub>dc</sub> mA	L <sub>H</sub> MH	L <sub>S</sub> uH Max.	C <sub>K</sub> pF Max.	R <sub>CU.IC</sub> Ω NOM.	R <sub>CU.L</sub> Ω NOM.	U <sub>P</sub> KVrms	figure/ schematic
flat design									
UT21139	1:0.66:0.66	40	6.0 min.	9	120	3.0	4.0	2.0	A
UT21158	1:0.66:0.66	60	6.35±12%	9	150	4.0	5.4	2.0	A
UT21140	1:0.66:0.66	60	5.2±15%	10	150	7.3	7.4	2.0	A
upright design									
UT21524	1:0.66:0.66	40	6.0 min.	9	120	3.0	4.0	2.0	A
UT21579	1:0.66:0.66	60	6.35±12%	9	150	4.0	5.4	2.0	A
UT21540	1:0.66:0.66	60	5.2±15%	10	150	7.3	7.4	2.0	A
SMT design									
UT21139-TS	1:0.66:0.66	40	6.0 min.	9	120	3.0	4.0	2.0	A
UT21158-TS	1:0.66:0.66	60	6.35±12%	9	150	4.0	5.4	2.0	A
UT21140-TS	1:0.66:0.66	60	5.2±15%	10	150	7.3	7.4	2.0	A

## Module

UMEC Model No.	Transformer								Choke				figure/ schematic
	n ±2%	I <sub>dc</sub> mA	L <sub>H</sub> mH	L <sub>S</sub> uH Max.	C <sub>K</sub> pF Max.	R <sub>CU.IC</sub> Ω Nom.	R <sub>CU.L</sub> Ω Nom.	U <sub>P</sub> KVrms s	L <sub>N</sub> mH	L <sub>S</sub> uH Max.	R <sub>CU</sub> Ω Nom.	U <sub>P</sub> KVrms	
through hole													
UT21619	1:0.66:0.66	60	6.35±12%	9	150	4.0	5.4	2.0	2x58	0.8	1.2	0.5	A
UT21623	1:0.66:0.66	60	6.35±12%	9	150	4.0	5.4	2.0	2x9	0.7	1.2	0.5	A
UT21625	1:0.66:0.66	60	5.0 min.	9	150	3.2	4.2	2.0	2x58	0.8	1.2	0.5	A
SMT design													
UT21619-TS	1:0.66:0.66	60	6.35±12%	9	150	4.0	5.4	2.0	2x58	0.8	1.2	0.5	A
UT21623-TS	1:0.66:0.66	60	6.35±12%	9	150	4.0	5.4	2.0	2x9	0.7	1.2	0.5	A
UT21625-TS	1:0.66:0.66	60	5.0 min.	9	150	3.2	4.2	2.0	2x58	0.8	1.2	0.5	A

\*)Modules combine one  $U_{KO}$ -transformer and one current compensated 2-fold choke.

\*Specifications are subject to change without prior notice.

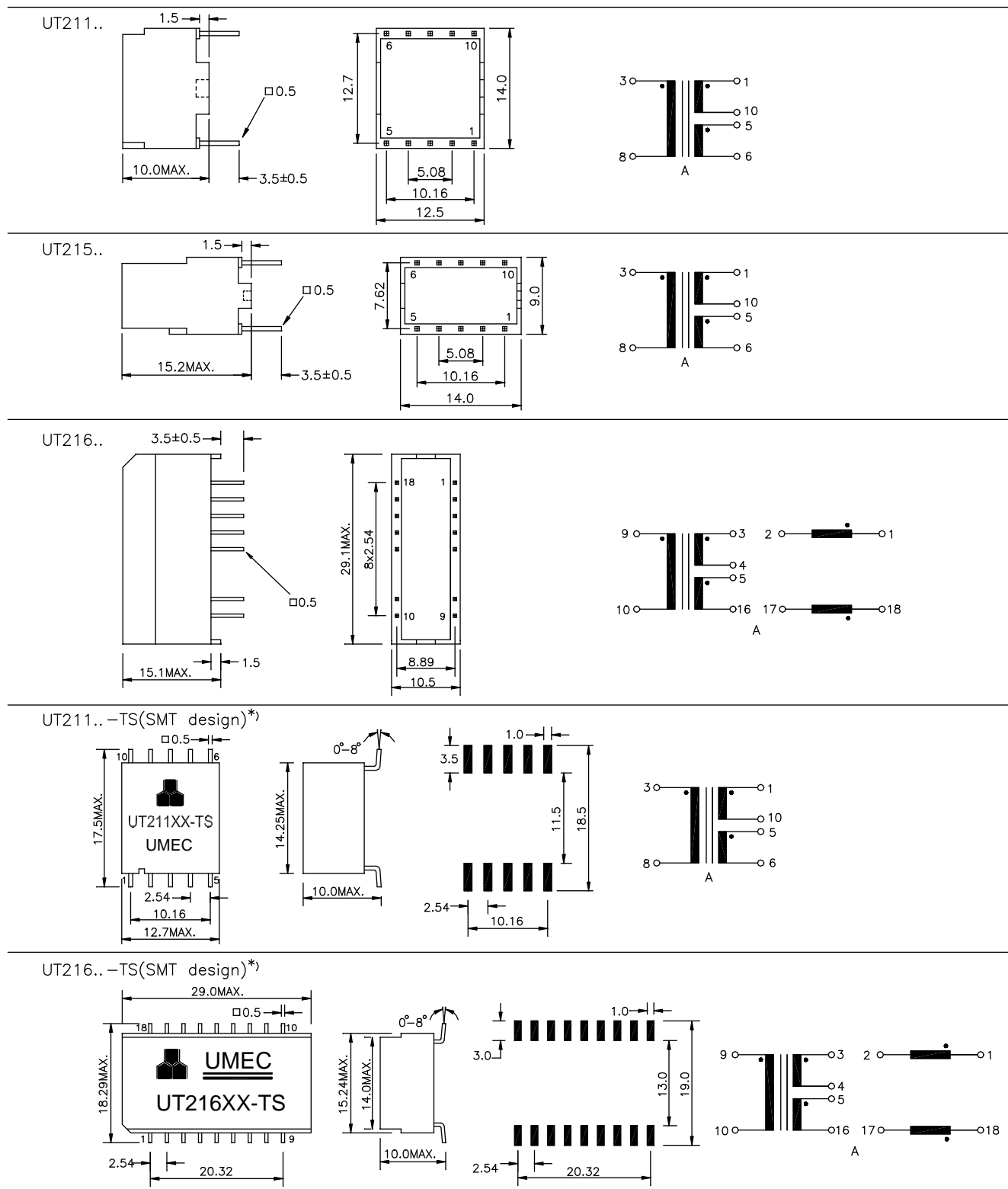
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3,27TH RD.,TAICHUNG INDUSTRIAL PARK,  
TAICHUNG,TAIWAN,R.O.C

# ISDN $U_{KO}$ -INTERFACE TRANSFORMER/MODULE

Dimensions and connections (tolerance =  $\pm 0.2\text{mm}$ )



\*) pin arrangement according to customer requirements.

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# **ISDN $U_{KO}$ -INTERFACE TRANSFORMER/MODULE**

## *definition of symbols:*

### *Transformer:*

$n$ = transformer ratio: IC-side:Line-side.

$I_{dc}$ = max. permissible DC supply.

$L_H$ = main inductance of winding(s) on Line-side(in series,  $f=10\text{KHz}$   $U=100\text{mVrms}$ ).

$L_S$ = leakage inductance of winding(s) on Line-side with winding(s) on IC-side short circuited(each in series,  $f=100\text{KHz}$   $U=100\text{mVrms}$ ).

$C_K$ = coupling capacitance between the winding(s) on IC-side and the winding(s) on Line-side(each in series,  $f=10\text{KHz}$   $U=100\text{mVrms}$ ).

$R_{CU.IC}$ = DC resistance of the winding(s) on IC-side(in series, nominal value).

$R_{CU.L}$ = DC resistance of the winding(s) on Line-side(in series, nominal value).

$U_P$ = test voltage, rms value 50/60Hz, 2seconds, winding(s) on Line-side to winding(s) on IC-side.

### *Choke:*

$L_N$ = rated inductance of a winding(tol. +50%/-30%,  $f=10\text{KHz}$   $U=100\text{mVrms}$ ).

$L_S$ = leakage inductance of winding when all other windings short circuited(nominal value,  $f=100\text{KHz}$   $U=100\text{mVrms}$ ).

$R_{CU}$ = DC resistance of each winding(nominal value).

$U_P$ =test voltage, rms value 50/60Hz, 2seconds, winding to winding.

