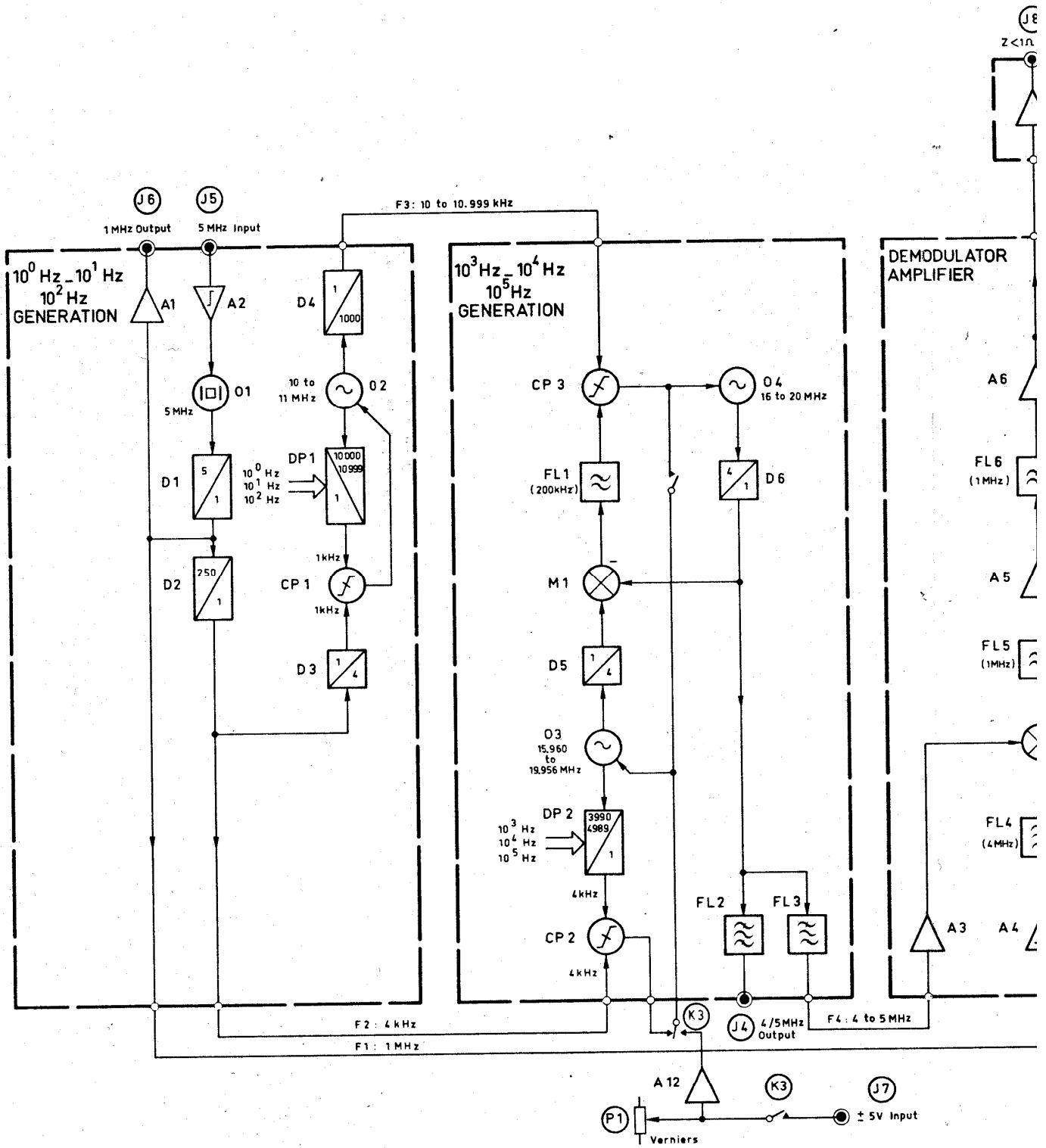
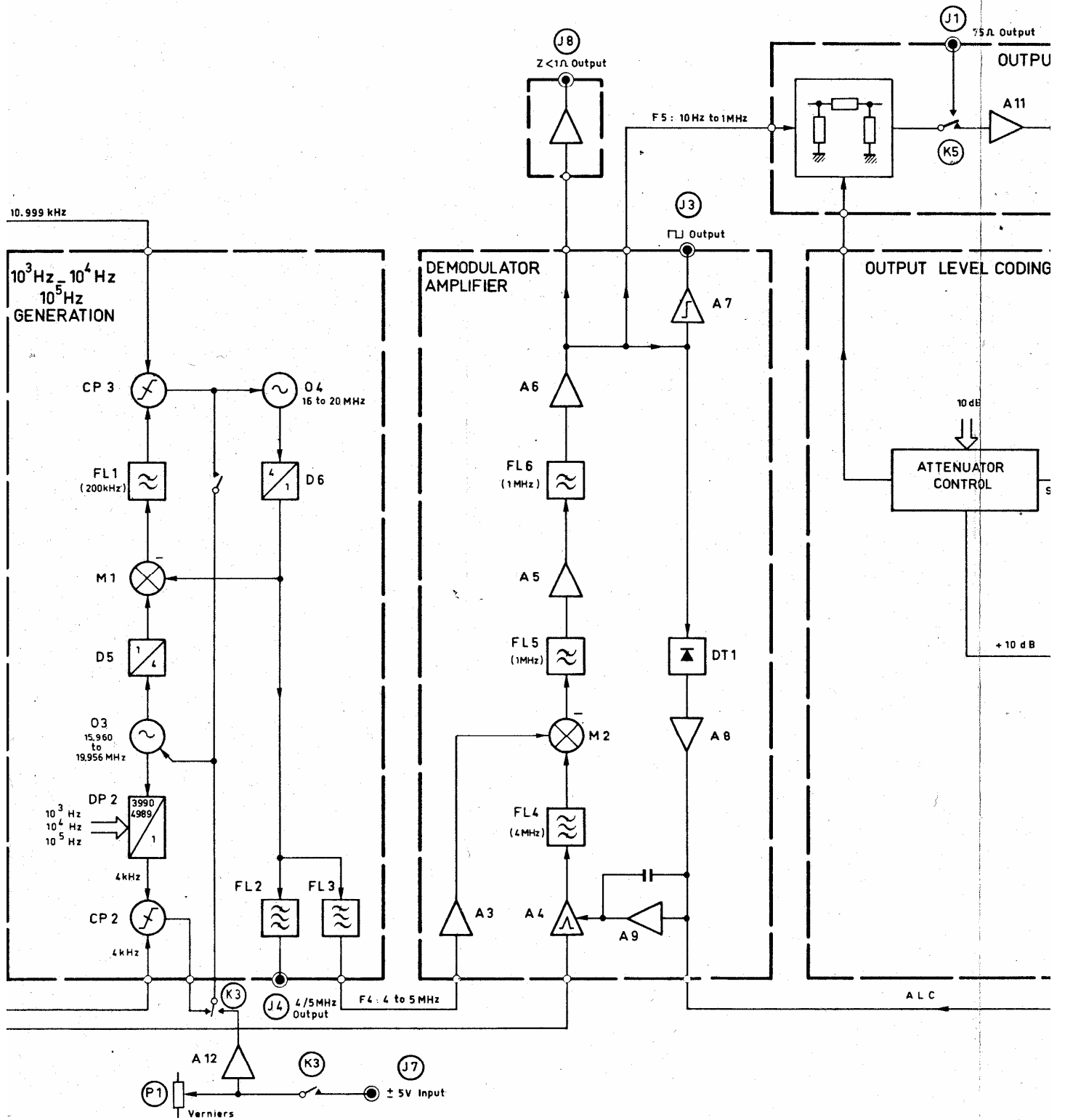


PLATE IV-3
2230A INTERNAL DESCRIPTION





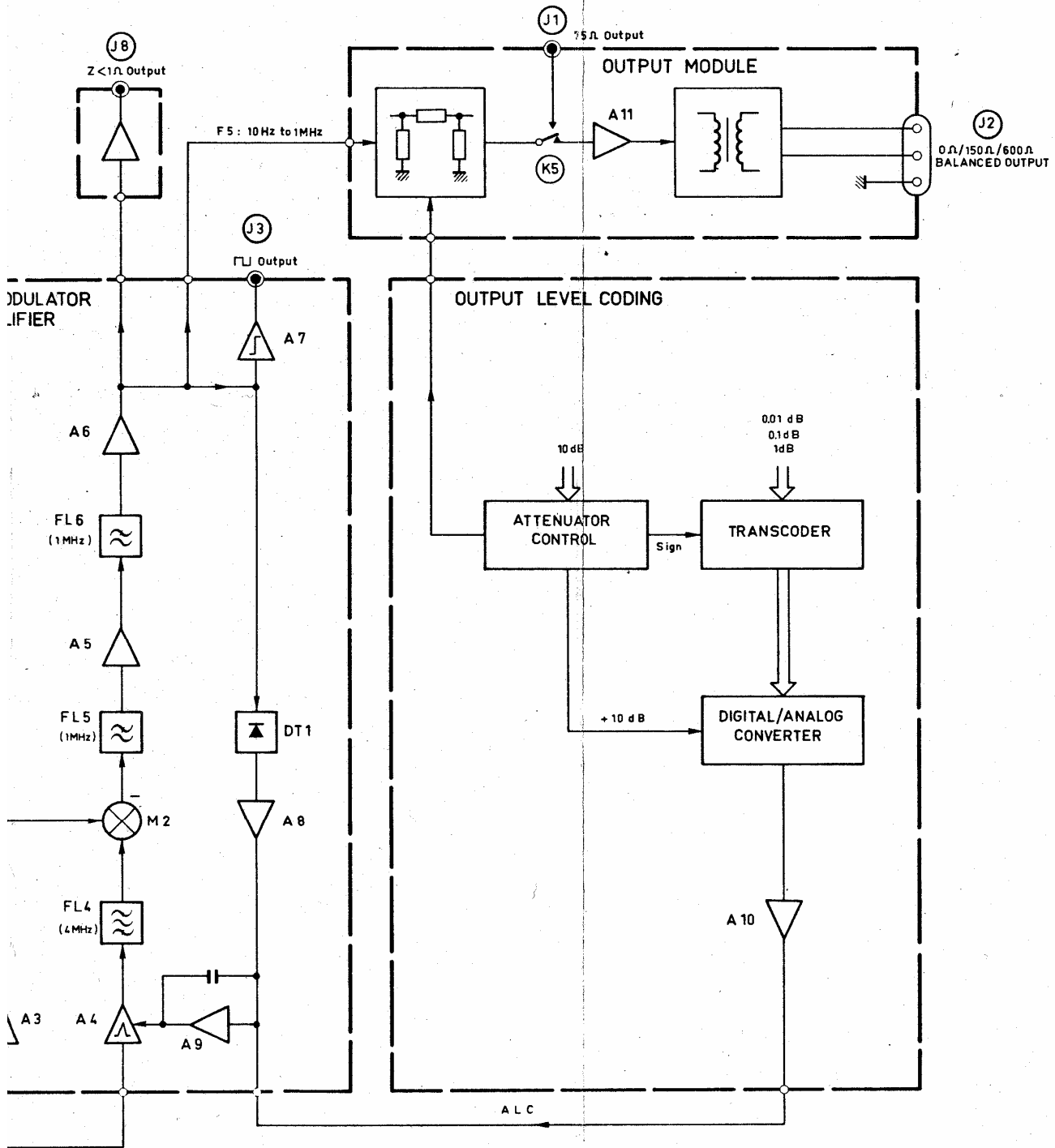


PLATE V.1
2230A . BLOCK DIAGRAM

Improving communications

You have just bought an **ADRET** instrument.

We would like to thank you for trusting our know-how, and we hope your choice will be satisfying.

However, despite how carefully it has been designed and manufactured, you may encounter some troubles.

To help us overcome these failures, and to solve them, we need to know the nature of your applications, the conditions of use and the difficulties encountered. You can help us by filling the reply card below.

On the other hand, we periodically publish a news **LETTER** dealing with our new products, our techniques, our organisation ...

By returning the coupon below, you will automatically be added to our new **LETTER** mailing list, and benefit from this useful mean of communication with you and between yourselves, users of **ADRET** equipments.

To tell us about any unusual or original applications you may have found particularly useful - we will publish them, with your permission - so that other users can enjoy the same benefits.



Instrument :

Model : Serial N° : Date of purchase :

Main applications and conditions of use :

.....

.....

Strong points : **Weak points - Difficulties encountered :**

.....

.....

Would you like to know more about the use of this instrument ?

.....

Would you be interested by a visit from a sales engineer ? Yes No

Would you like information on other Adret instruments ?

Yes **Which :**

.....

POSTCARD

Company :

Department :

Service :

Address :

.....

City :

Country :

Name/first name :

N° tel. :

N° telex :



ADRET Electronique
Service Commercial
BP 33

78192 TRAPPES CEDEX
FRANCE

ADRETELECTRONIQUE®



SCHEMAS ET NOMENCLATURES
DIAGRAMS AND NOMENCLATURES

ADRETELECTRONIQUE®

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Téléfax 01 39 00 74 • Tél. ADRETEL 697821 F • Site 67902077-00014 • CCF Paris 21 79794

T A B L E D E S M A T I E R E S

- * SIGNIFICATION des codes sous/ensembles et Réf. Adret
- * ARTICULATION et SYNOPTIQUE
- * SCHEMAS et NOMENCLATURES
- * LISTE des COMPOSANTS
- * LISTE des SOUS-ENSEMBLES MAINTENANCE
 - Outillage
 - Rechange 100%
 - Rechange 70%
 - Composants maintenance
- * Garantie et Assistance

C O N T E N T

- * MEANING of the part number and Adret codes
- * ARTICULATION and BLOCK DIAGRAM
- * DIAGRAMS and NOMENCLATURES
- * COMPONENTS LIST
- * RECOMMENDED SUB-ASSEMBLIES or PC board
 - Extended boards
 - Set of 100% of repairs
 - Set of 70% or repairs
 - Set of components
- * Warranty and Assistance

SIGNIFICATION des codes sous/ensembles et Ref. Adret

Dans le chapitre **SCHEMAS et NOMENCLATURES**, les deux premiers chiffres

- du code s/ensemble (page 1)
 - et de la Ref. Adret (page 2 et suivantes),
- correspondent à une famille de produits.

Le détail de ces familles est donné dans le tableau ci-après.

Exemples

Page 1 : Articulation

PAGE	CODE S/ENSEMBLE PART NUMBER	DESCRIPTION	*	PART DESCRIPTION	PLAN DRAWING
- 2	0471004009-*	16 OPTION AMPLI STD	*	16 OPTION AMPLI 650MHZ .	C94.....A98*97
- 5	0271520000-*	13 ATTENUATEUR	*	13 ATTENUATOR ASSEMBLY .	A92.....C98...
- 6	0273210000-*	03 CARTE BF AMPLI STD ..	*	03 BF BOARD AMPLI 650MHZ	A93.....
- 7	0274740000-*	02 CDE AMPLI STD	*	02 CONTROL AMPLI 650MHZ.	C93.....A97

Soit le code s/ensemble **0271520000**.

Le tableau ci-après indique qu'il s'agit d'un sous-ensemble (02).

Page 2 et suivantes : Nomenclature

REPERE INDEXE	REF. ADRET PART NUMBER	DESCRIPTION	PART DESCRIPTION	FOURNISSEUR/PLAN SUPPLIER/DRAWING
001	0271520000	13 ATTENUATEUR	* 13 ATTENUATOR ASSEMBLY .	A92.....C98...
001	0273210000	03 CARTE BF AMPLI STD ..	* 03 BF BOARD AMPLI 650MHZ	A93.....
001	0274740000	02 CDE AMPLI STD	* 02 CONTROL AMPLI 650MHZ.	C93.....A97
B -001	1400217300	KM10 EMBASE*MALE*FIXAT. AVANT	* KM10 00 FRONT ANCHOR MALE ...	SEAELECTRO
B -002	1420020700	TRF254 M 20 MALE A SOUDER	* TRF254 M 20 MALE TO SOLDER	TRELEC
C	3100620000	FILTRE TRAVERSEE ZFN 5203-00A	* PINCH FILTER ZFN 5203-00A	TDK
C -001	3150042200	0,22MMF 5 50V20X 3439050 E224M	* 0,22MMF 5 50V20X 3439050	AVX
C -002	3800042200	CHIPS 0,22MMF 20X 25V Z5U-1808	* CHIPS 0,22MMF 20X 25V Z5U-1808	RTC
C -003	3120098200	8,2PF 2,5"E" 2222 678 09 828	* 8,2PF 2,5"E" 2222 678 09 828	COGECO
C -004	3800042200	CHIPS 0,22MMF 20X 25V Z5U-1808	* CHIPS 0,22MMF 20X 25V Z5U-1808	RTC

Soit la Ref. Adret **3150042200**.

Le tableau ci-après indique qu'il s'agit d'un condensateur Céramique (31) et rappelle son repère (C).

PRODUITS

Repère Famille

	01	Option Client
	02	Sous-Ensemble
	04	Option Usine
	10	Transformateurs
COMPOSANTS D'INTERCONNEXIONS	11	Fils et câbles
	12	Circuits imprimés
	13	Accessoires de câblage
	B	Connecteurs
	K	Commutateurs
	K	Relais

PRODUITS	Repère	Famille
		17 Protection, signalisation, lampes, fusibles...
		18 Galvanomètre, compteur horaire...
		19 Accessoires pour composants d'interconnexions
RESISTANCES	R	20 Thermistances CTN - CTP
	P	21 Potentiomètres
	R	22,23 Résistances usage courant
	R	24 Résistances usage courant
	R	25,26 Résistances à couche métallique
	R	27 Résistances très haute précision
	R	28 Résistances bobinées
	R	29 Résistances miniatures
CONDENSATEURS	C	31 Condensateurs céramiques
	C	32 Condensateurs film plastique
	C	33 Condensateurs mica
	C	35 Condensateurs électrochimiques
	C	36 Condensateurs variables
	C	37 Condensateurs tantales
	C	38 Condensateurs CHIPS, pastille céramique
		39 Accessoires
SEMI-CONDUCTEURS	D	40 Cellule photo émissive
	SN	41 Circuits intégrés logiques
	SN	42 Circuits intégrés analogiques
	Q	43 Transistors
	Q	44 Transistors à effet de champ
	D	45 Diodes et varicaps
	D	46 Diodes Zener
		48 Circuits hybrides
		49 Accessoires
AUTRES COMPOSANTS ELECTRONIQUES	Y	51 Quartz et accessoires
	F	52 Filtre
	L	53 Inductances surmoulées
		54 Composants pour bobinages
		55 Tubes ferrites
		56 Composants pour bobinages
		57 Accumulateur
		59 Transducteur
PIECES DETACHEES MECANIQUES		61 Vis
		62 Ecrous
		63 Rondelles
		64 Rivets, plots, circlips ...
		65 Boutons, cadrans ...
		67 Entretoises
MECANIQUE		71 à 91

MEANING of the "part number" and "Ref. Adret" codes

In the **DIAGRAMS and NOMENCLATURES** chapter, the two first numbers of

- the part number (page 1)
 - and the Ref. Adret (page 2 and following),
- correspond to a product-family.

The details of those families are given in the following list.

Examples

Page 1 : Articulation

PAGE	CODE S/ENSEMBLE PART NUMBER	DESCRIPTION	*	PART DESCRIPTION	PLAN DRAWING
- 2	0471004009-*	16 OPTION AMPLI STD	*	16 OPTION AMPLI 650MHZ .	C94.....A98*97
- 5	0271520000-*	13 ATTENUATEUR	*	13 ATTENUATOR ASSEMBLY .	A92.....C98...
- 6	0273210000-*	03 CARTE BF AMPLI STD ..	*	03 BF BOARD AMPLI 650MHZ	A93.....
- 7	0274740000-*	02 CDE AMPLI STD	*	02 CONTROL AMPLI 650MHZ.	C93.....A97

Take the part number **0271520000**.

The following list indicates that it concerns a sub-assembly (02).

Page 2 and following : Nomenclature

REFERE INDEXE	REF. ADRET PART NUMBER	DESCRIPTION		PART DESCRIPTION	FOURNISSEUR/PLAN SUPPLIER/DRAWING
	001 0271520000	13 ATTENUATEUR	*	13 ATTENUATOR ASSEMBLY .	A92.....C98...
	001 0273210000	03 CARTE BF AMPLI STD ..	*	03 BF BOARD AMPLI 650MHZ	A93.....
	001 0274740000	02 CDE AMPLI STD	*	02 CONTROL AMPLI 650MHZ.	C93.....A97
B	-001 1400217300	KM10 EMBASE MALE FIXAT. AVANT	*	KM10 00 FRONT ANCHOR MALE ...	SEALCTRO
B	-002 1420020700	TRF254 M 20 MALE A SOUDER	*	TRF254 M 20 MALE TO SOLDER	TRELEC
C	3100620000	FILTRE TRAVERSEE ZFN 5203-00A	*	PINCH FILTER ZFN 5203-00A	TDK
C	-001 3150042200	0,22MMF 5 50V20X 3439050 E224M	*	0,22MMF 5 50V20X 3439050 E224M	AVX
C	-002 3800042200	CHIPS 0,22MMF 20X 25V Z5U-1808	*	CHIPS 0,22MMF 20X 25V Z5U-1808	RTC
C	-003 3120098200	8,2PF 2,5"E" 2222 678 09 828	*	8,2PF 2,5"E" 2222 678 09 828	COGECO
C	-004 3800042200	CHIPS 0,22MMF 20X 25V Z5U-1808	*	CHIPS 0,22MMF 20X 25V Z5U-1808	RTC

Take the Ref. Adret **3150042200**.

The following list indicates that it concerns a ceramic capacitor (31) and recalls its reference (C).

PRODUCTS

Reference Family

	01	Customer Option	
	02	Sub-Assembly	
	04	Factory Option	
INTERCONNECTION COMPONENTS	10	Transformers	
	11	Cables assembly	
	12	Printed circuits	
	13	Accessories	
	B	14	Connectors
	K	15	Switches
K	16	Relays	

PRODUCTS

Reference Family

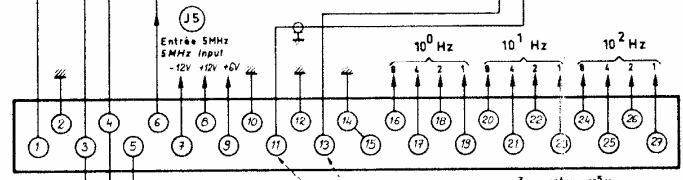
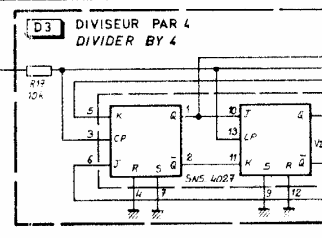
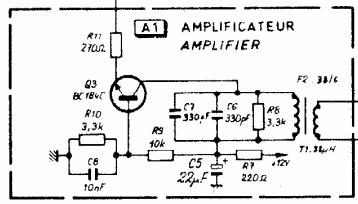
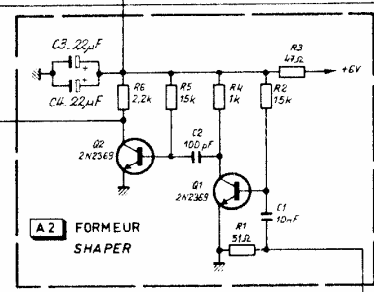
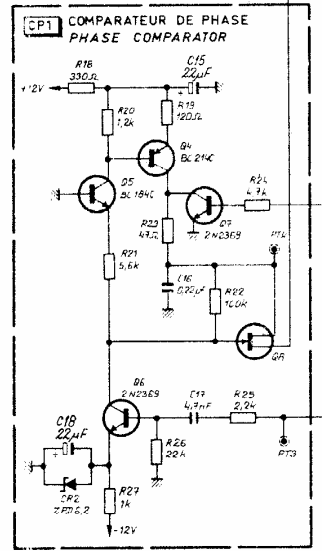
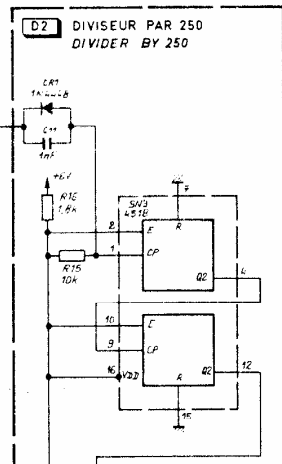
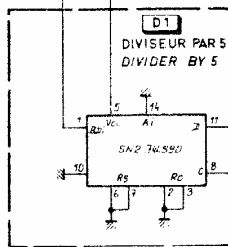
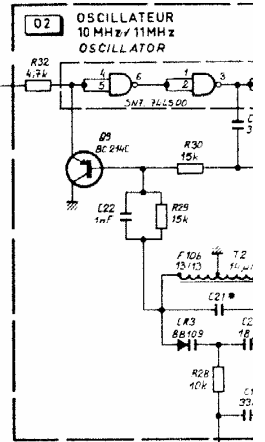
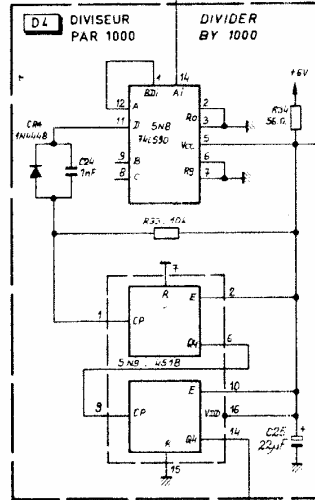
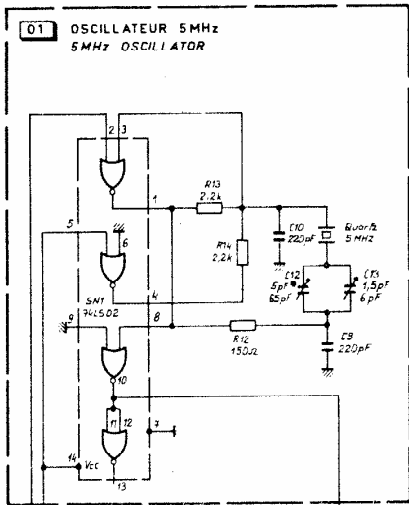
		17	Protection, signalling, lights, fuses ...
		18	Galvanometer, time counter ...
		19	Accessories for interconnection components
RESISTORS	R	20	Thermistors CTN - CTP
	P	21	Potentiometers
	R	22,23	Resistors for running use
	R	24	Resistors for running use
	R	25,26	Resistors with metallic sheet
	R	27	Resistors very high accuracy
	R	28	Winded resistors
	R	29	Miniature resistors
CAPACITORS	C	31	Ceramic capacitors
	C	32	Capacitors film plastic
	C	33	Capacitors mica
	C	35	Electrochemical capacitors
	C	36	Variable capacitors
	C	37	Tantalum capacitors
	C	38	CHIPS capacitors, ceramic pastille
		39	Accessories
SEMI-CONDUCTORS	D	40	Photo emitting cell
	SN	41	Logic printed circuits
	SN	42	Analog printed circuits
	Q	43	Transistors
	Q	44	Field effect transistors
	D	45	Diodes and varicaps
	D	46	Zener diodes
		48	Hybrid circuits
		49	Accessories
OTHERS ELECTRONIC COMPONENTS	Y	51	Crystals and accessories
	F	52	Filter
	L	53	Surmoulded inductors
		54	Components for winding
		55	Ferrite tubes
		56	Components for winding
		57	Battery
		59	Transducer
MECANIC REPLACEMENT PARTS		61	Screws
		62	Nuts
		63	Washers
		64	Clinches, contacts, circlips ...
		65	Knobs, faces ...
		67	Spacer round
MECANICAL		71	to 91

PAGE	CODE S/ENSEMBLE PART NUMBER	DESCRIPTION	*	PART DESCRIPTION	PLAN DRAWING
- 2	0422301002-*	00 AVANT HABILLAGE Z=0 . 2230A	*	00 AVANT HABILLAGE Z=0 . 2230A	
- 3	0269050000-*	14 1ER GENERATION 2230A	*	14 FIRST GENERATION 2230A	M932502.A976905
- 5	0269060000-*	17 2EME GENERATION 2230A	*	17 SECOND GENERATION ... 2230A	M932344.E976906
- 8	0269070000-*	13 CARTE AMPLIFICATEUR . 2230A	*	13 AMPLIFIER BOARD 2230A	G932353.A976907
- 11	0269080000-*	06 CARTE COMMANDE NIVEAU 2230A	*	06 LEVEL CONTROL BOARD . 2230A	G932349.A976908
- 13	0269100000-*	11 BAQUET DE SORTIE 2230A	*	11 OUTPUT MODULE 2230A	J920871.C976910
- 14	0269110000-*	03 ATTENUATEUR 2230A	*	03 ATTENUATOR 2230A	C932524.....
- 15	0269120000-*	11 AMPLI SYMETRIQUE 2230A	*	11 SYMMETRICAL AMPLI ... 2230A	H932351.1&2/2..
- 16	0270080300-*	02 CHASSIS EQUIPE Z0 ... 2230A	*	02 FITTED CHASSIS Z0 ... 2230A	J910214.....
- 17	0269150100-*	07 PORTEUR EQUIPE 2230A	*	07 FITTED MOTHER BD 2230A	B920953.A976915
- 18	0270110000-*	08 PLAQUE AVANT MONTEE . 2230A	*	08 ASSEM. FRONT PLATE .. 2230A	L920934.....
- 19	0269090000-*	03 COMMUTATEUR TTL 2230A	*	03 TTL SWITCH 2230A	D932366.....
- 20	0270030100-*	09 COMMUTATEUR MODE 2230A	*	09 MODE SWITCH 2230A	J932523.B977003
- 21	0270100000-*	04 BLOC ROUES CODEES ... 2230A	*	04 SPIN WHEELS BLOCK ... 2230A	D920933.....
- 22	0270940000-*	01 AMPLI Z=0 2230A	*	01 AMPLI Z=0 2230A	E932549.A977094
- 23	0422308301-*	08 OPTION 2 IIEEE 2230A	*	08 OPTION 2 IIEEE 2230A	F932565
- 24	0269970000-*	06 CARTE REGISTRE IIEEE . 2230A	*	06 IIEEE REGISTER BOARD . 2230A	E932563.B976997
- 25	0274880000-*	02 CARTE ISOLATION IIEEE 2230A	*	02 IIEEE INSULATING BOARD 2230A	D932961.C977488
- 27	0422308302-*	03 OPTION 1 BCD 2230A	*	03 OPTION 1 BCD 2230A	A932555(2).....
- 28	0269130000-*	01CARTE OPTION BCD 2230A	*	01 BCD OPTION BOARD 2230A	932547. 976913

REPERE INDEXE	REF. ADRET PART NUMBER	DESCRIPTION	PART DESCRIPTION	FOURNISSEUR/PLAN SUPPLIER/DRAWING	QTE QTY
	001 0422301002	00 AVANT HABILLAGE Z=0 . 2230A	* 00 AVANT HABILLAGE Z=0 . 2230A		1
	001 0422308301	08 OPTION 2 IEEE 2230A	* 08 OPTION 2 IEEE 2230A F932565		1
	001 0422308302	03 OPTION 1 BCD 2230A	* 03 OPTION 1 BCD 2230A A932555(2).....		1
ZO	0122309001	KIT ASSEMBLAGE RACK 3U 1X2230A	* KIT ASSEMBLAGE RACK 3U 1X2230A A910165		1
ZO	0122309002	KIT ASSEMBLAGE RACK 3U 2X2230A	* KIT ASSEMBLAGE RACK 3U 2X2230A A910165		1
ZO	0122309003	00 PROLONGATEUR 27 1 GEN 2230A	* 00 PROLONGATEUR 27 1 GEN 2230A *932610.....		1
ZO	0122309004	00 PROLONGATEUR 27 2 GEN 2230A	* 00 PROLONGATEUR 27 2 GEN 2230A *932611.....		1
ZO	0122309005	00 PROLONG. OPT.IEEE+BCD 2230A	* 00 PROLONG. OPT.IEEE+BCD 2230A A93.....		1
ZO	0122309006	00 PROLONG. CDE NIVEAU 2230A	* 00 PROLONG. CDE NIVEAU 2230A A93.....		1
ZO	0122309007	00 PROLONGATEUR AMPLI .. 2230A	* 00 PROLONGATEUR AMPLI .. 2230A A93.....		1
ZO	0422308304	01 OPTION 20/21MHZ 2230A	* 01 OPTION 20/21MHZ 2230A A92 1&2/2		1

 *0422301002 00 AVANT HABILLAGE Z=0 . 2230A * 00 AVANT HABILLAGE Z=0 . 2230A *

REPÈRE INDEXE	REF. ADRET PART NUMBER	DESCRIPTION	PART DESCRIPTION	FOURNISSEUR/PLAN SUPPLIER/DRAWING	QTE QTY
001	0269050000 14	1ER GENERATION	2230A * 14 FIRST GENERATION	2230A M932502.A976905	1
001	0269060000 17	2EME GENERATION	2230A * 17 SECOND GENERATION ...	2230A M932344.E976906	1
001	0269070000 13	CARTE AMPLIFICATEUR .	2230A * 13 AMPLIFIER BOARD	2230A G932353.A976907	1
001	0269080000 06	CARTE COMMANDE NIVEAU	2230A * 06 LEVEL CONTROL BOARD .	2230A G932349.A976908	1
001	0269100000 11	BAQUET DE SORTIE	2230A * 11 OUTPUT MODULE	2230A J920871.C976910	1
001	0270080300 02	CHASSIS EQUIPE ZO ...	2230A * 02 FITTED CHASSIS ZO ...	2230A J910214.....	1
ZO	0422301300 02	LOT HABILLAGE	FANTOME * 02 LOT HABILLAGE	FANTOME	1

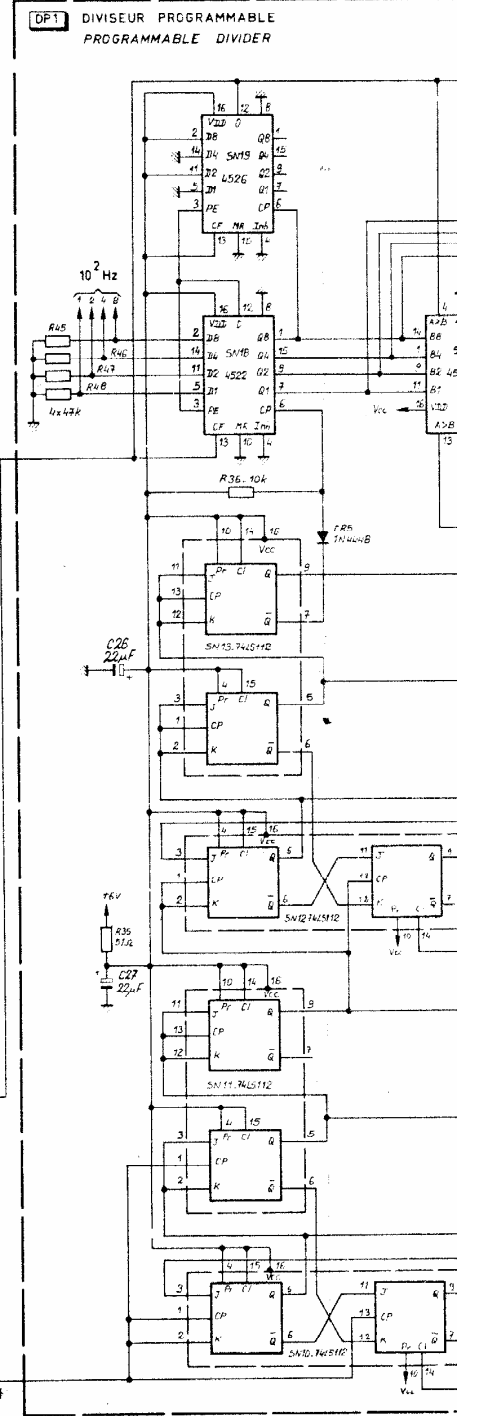
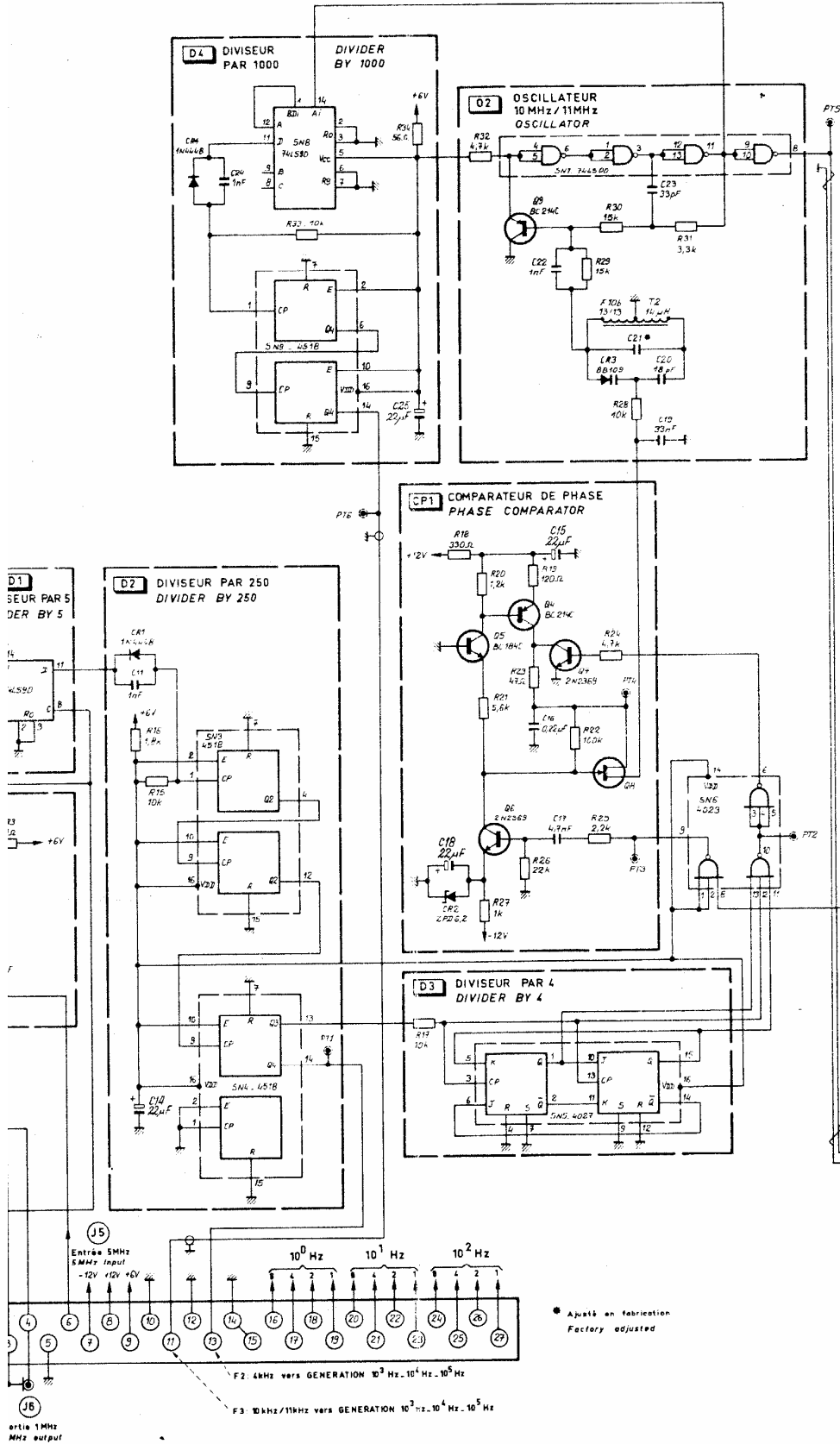


F1: 1MHz
vers DEMODULATEUR AMPLIFICATEUR
to DEMODULATOR AMPLIFIER

F2: 4kHz vers GENERATION 10³ Hz · 10⁴ Hz · 10⁵ Hz

F3: 10kHz/11kHz vers GENERATION 10³ Hz · 10⁴ Hz · 10⁵ Hz

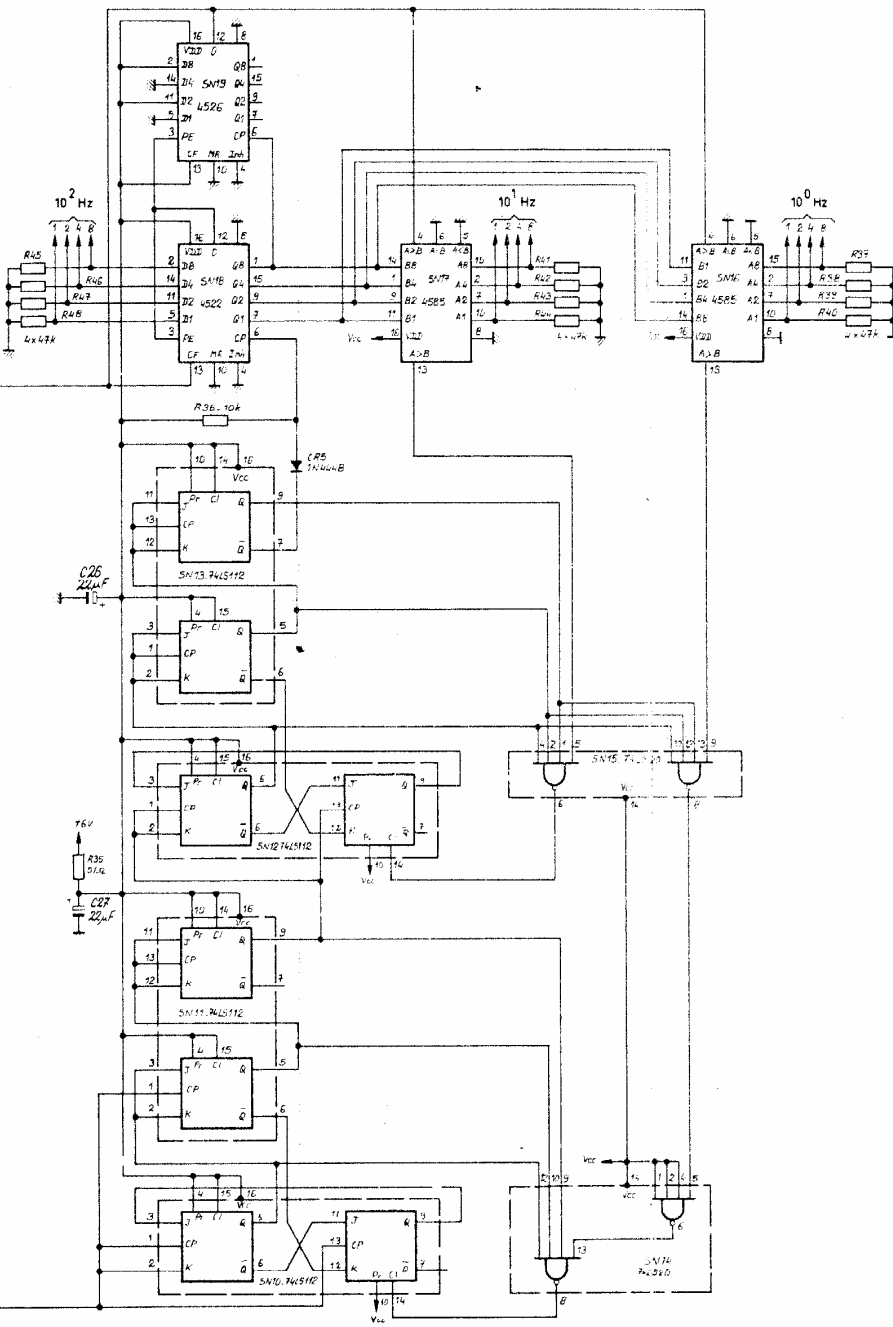
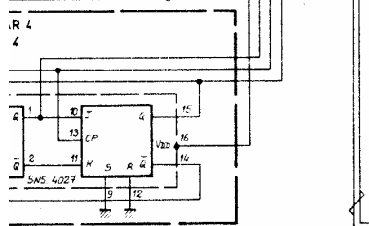
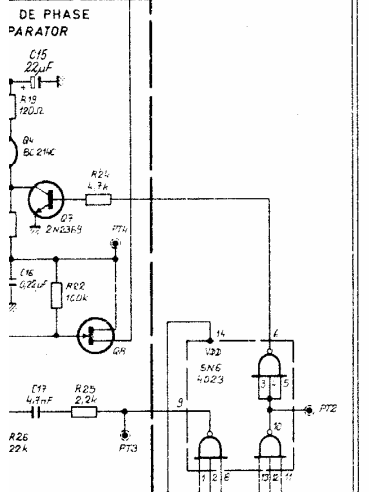
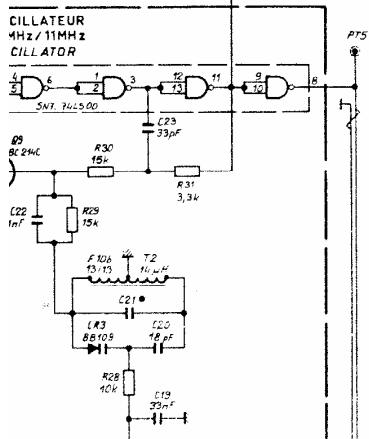
* Ajusté en fabrication
Factory adjusted



• Ajusté en fabrication
Factory adjusted

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ETUDE DESSINÉ VER
ACORT HV

DP1 DIVISEUR PROGRAMMABLE
PROGRAMMABLE DIVIDER



* Ajusté en fabrication
Factory adjusted

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ETUDE	DESSIN	VERIFIE	2230 A	PAGE : 1 / 1
ACORT	HV	GENERATION 10 ⁰ Hz - 10 ¹ Hz - 10 ² Hz		976905A

